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2/11/93
(final)

FINAL DRAFT
SITE INSPECTION REPORT
JAMECO INDUSTRIES, INC.
WYANDANCH, SUFFOLK COUNTY, NEW YORK

PREPARED UNDER

WORK ASSIGNMENT NO. 019-2JZZ
CONTRACT NO. 68-W9-0051

DECEMBER 31, 1991

VOLUME 2 OF 2

REFERENCE NO. 33

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK

PHASE I INVESTIGATIONS

JAMECO INDUSTRIES, INC.
TOWN OF BABYLON
SUFFOLK COUNTY, NEW YORK
NYSDEC SITE NO. 152006

Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233

Prepared by:

WOODWARD-CLYDE CONSULTANTS, INC.
1250 Broadway, 15th Floor
New York, New York 10001

May 1987
82C4548-3

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C	UPDATED NEW YORK STATE REGISTRY FORM

The Jameco Industries, Inc. site is in Wyandanch, town of Babylon, Suffolk County, New York (Figure 1). Jameco is located at 248 Wyandanch Avenue at the corner of Mount Avenue and is about 0.5 mile north of the Southern State Parkway. The approximately 6-acre site consists of a large process building and offices, a warehouse, above-ground tanks, and an extensive on-site disposal system.

Jameco is an active plating facility operating at the site since 1964. Activities at Jameco include metal finishing and nickel and chrome electroplating of brass and copper plumbing fixtures. Wastes generated from these processes generally include the heavy metals chromium (total and hexavalent), copper, nickel, zinc, and iron. Other water-quality parameters are also generated from on-site processing. Solvents, particularly trichloroethylene and tetrachloroethylene, are generated from cleaning processes.

From 1964 to 1975, three large unlined lagoons were used for on-site disposal of metal plating wastes. The sludge from the chemical treatment of waste water was placed in the lagoons and the effluent was discharged to leaching pools (Pim, 1987). In 1975, the lagoons were abandoned and the sludge was reportedly excavated and hauled off site. The lagoons were subsequently backfilled with native sand and gravel. A waste disposal system consisting of 48 new leaching pools replaced the sludge ponds in mid-1975. Treatment consisted of a chemical precipitation system (Pim, 1987). Treated discharge to the leaching pools often exceeded the limits established in the facility's State Pollution Discharge Elimination System (SPDES) Permit for metals particularly. A Complaint was issued to Jameco in 1981 by the New York State Department of Law for violations of their SPDES permit and other Environmental Conservation Law infractions (NYS Department of Law, 1981).

Chemical analyses conducted on soil, sludge, effluent and ground-water samples collected on various occasions during the period 1979 to 1984 indicated contamination by heavy metals and volatile organic compounds.

Ground water is the sole source of potable supply for over 100,000 residents within a 3-mile radius of the site.

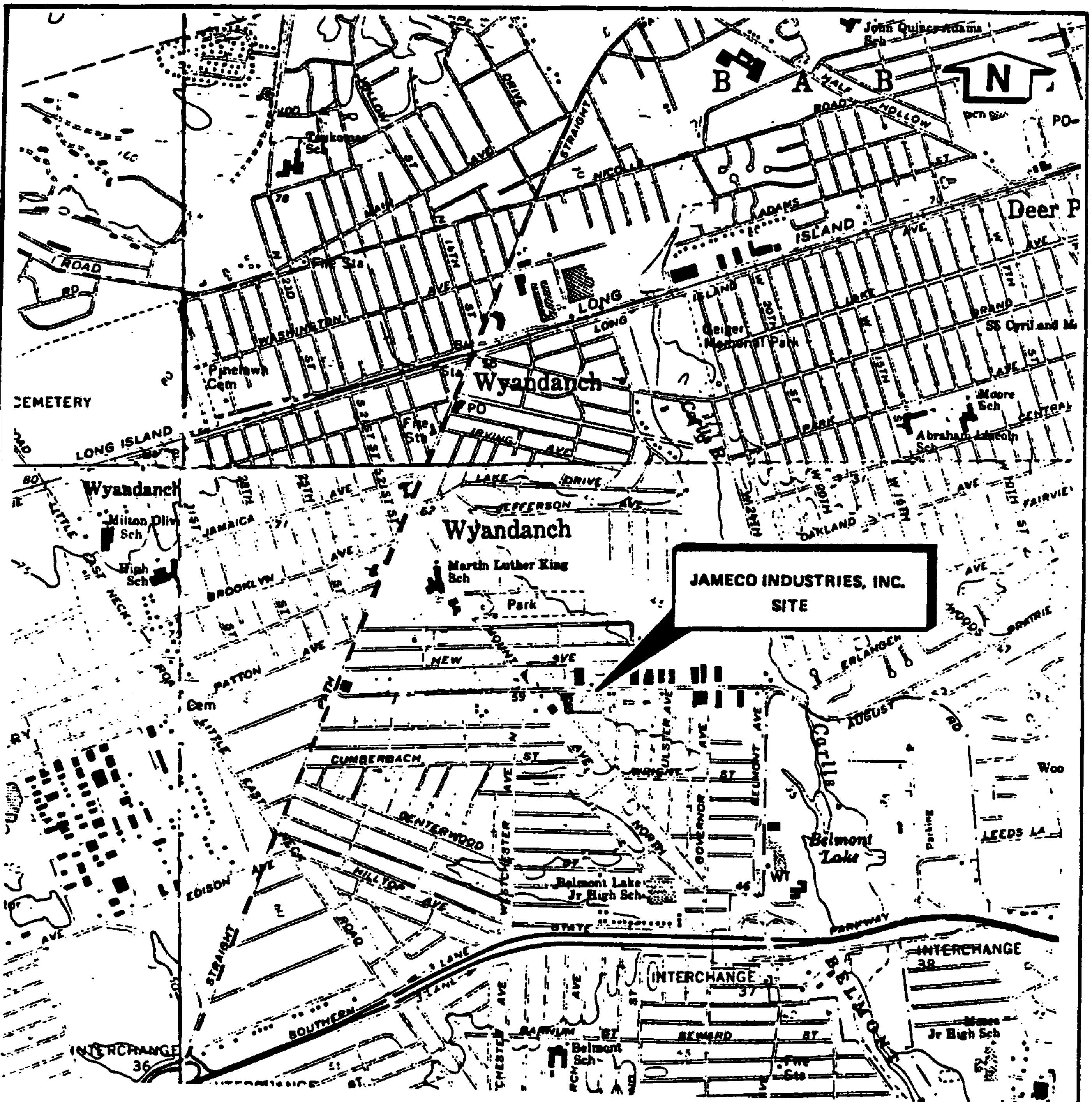
The Phase I effort for Jameco Industries, Inc. included: collection and review of existing data; preparation of a preliminary Hazard Ranking Score (HRS) for the site; conducting a site investigation/responsible parties interview; development of a preliminary hydrogeologic model; completion of required documentation; development of a work plan and estimated costs for further investigations at the site; and preparation of a summary report.

The preliminary HRS scores developed for Jameco Industries, Inc. (NYSDEC Site No. 152006) are as follows:

S_M = 54.32 (Sgw = 93.33 Ssw = 10.91 Sa = 0)
S_{FE} = N/A
SDC = 0

The data available were inadequate to prepare a final HRS score. The Hazardous Waste Quantity score was based on estimates of discharge to on-site leaching pools and sludge lagoons. Adequate soil and ground water sampling and analysis is required to obtain more valid chemical analytical data for this site.

The Phase II Work Plan developed for Jameco Industries, Inc. is specifically designed to address questions concerning soil, ground water and air quality so that a final HRS score and conceptual remedial designs and estimated costs can be developed. We have proposed a limited geophysical survey, the installation of seven monitoring wells, soil and ground water sampling and analysis, and an air quality survey. A detailed description of the work plan and estimated costs is provided in Section 6.0.



0	2000	4000 FT

SCALE

COORDINATES

LAT. 40° 44' 31"

LONG. 73° 21' 27"

MAP SOURCE:

USGS MAPS BAY SHORE WEST, GREENLAWN, HUNTINGTON, AND AMITYVILLE N.Y. QUADRANGLES NEW YORK–SUFFOLK CO. 7.5 MINUTE SERIES PHOTOREVISED 1979

DEPARTMENT OF ENVIRONMENTAL CONSERVATION · NEW YORK STATE

Prepared for
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233
Henry G. Williams, Commissioner

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Norman H. Nosenchuck, P.E.
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Approved

JAMECO INDUSTRIES, INC.
PHASE I INVESTIGATION
SITE LOCATION MAP

Prepared by:
WOODWARD–CLYDE CONSULTANTS, INC.
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
NEW YORK, NEW YORK

DR BY: TJD	SCALE: AS SHOWN	PROJ NO 82C4548-3
CK'D BY: LEW	DATE 5 FEB 1986	FIG NO 1

Jameco Industries, Inc. is located in Wyandanch in western Suffolk County, New York (Figure 1). Jameco, an active electroplating facility since 1964, is located at 248 Wyandanch Avenue. The approximately 6-acre site consists of a large process building with offices, a warehouse, above-ground holding tanks, and a disposal system of 48 leaching pools.

Operations include finishing brass and copper plumbing fixtures and nickel and chrome electroplating processes. Wastes generated from the finishing, cleaning, and electroplating processes resulted in wastewater and sludge contaminated with: heavy metals including chromium (total and hexavalent), copper, nickel, zinc, lead, and iron; cyanide; volatile organics; sulfates; and various other parameters. These processing wastes were disposed of on-site in two large unlined sludge lagoons from 1964 to 1975. In 1975, sludge was reportedly removed from the lagoons which were subsequently backfilled with native sand and gravel. A disposal system consisting of 48 leaching pools replaced the abandoned lagoon system.

Inadequate maintenance of both the abandoned and replacement disposal systems resulted in occasional effluent overflow from lagoons and leaching pools. The Suffolk County Department of Health Services (SCDHS) found that discharge analyzed from Jameco Industries, Inc. exceeded the levels established in their State Pollutant Discharge Elimination System (SPDES) Permit on several occasions from 1975 to 1984. Other violations of the New York State Environmental Conservation Law include inadequate drum storage (SCDHS, 1979b) and overflow of wastewater onto the ground (SCDHS, 1979a).

Jameco is located in a densely populated residential area. Other industrial facilities are located about 200 feet east of the facility on Wyandanch Avenue. At least six schools are located within a one-mile radius of the site.

Jameco has two wells on site: a production well and a diffusion well. The Suffolk County Water Authority operates two deep municipal supply wells within 300 feet upgradient of the Jameco facility. An unknown number of private wells also exist in the site area. Chemical analytical data indicated contamination of the Jameco production well and private wells in the site area (Belli et al, 1977). Ground water is the sole source of potable supply for more than 100,000 people within a 3-mile radius of the site.

The Jameco facility is less than 0.5 mile from Belmont Lake State Park, where the Lake and Park are used for recreational purposes. Fresh water wetlands are located less than 0.5 mile from the facility boundary.

In 1981, Jameco Industries, Inc. was issued a Complaint by the New York State Department of Law.

Location

2.0
U.S. ENVIRONMENTAL PROTECTION AGENCY DOCUMENTATION

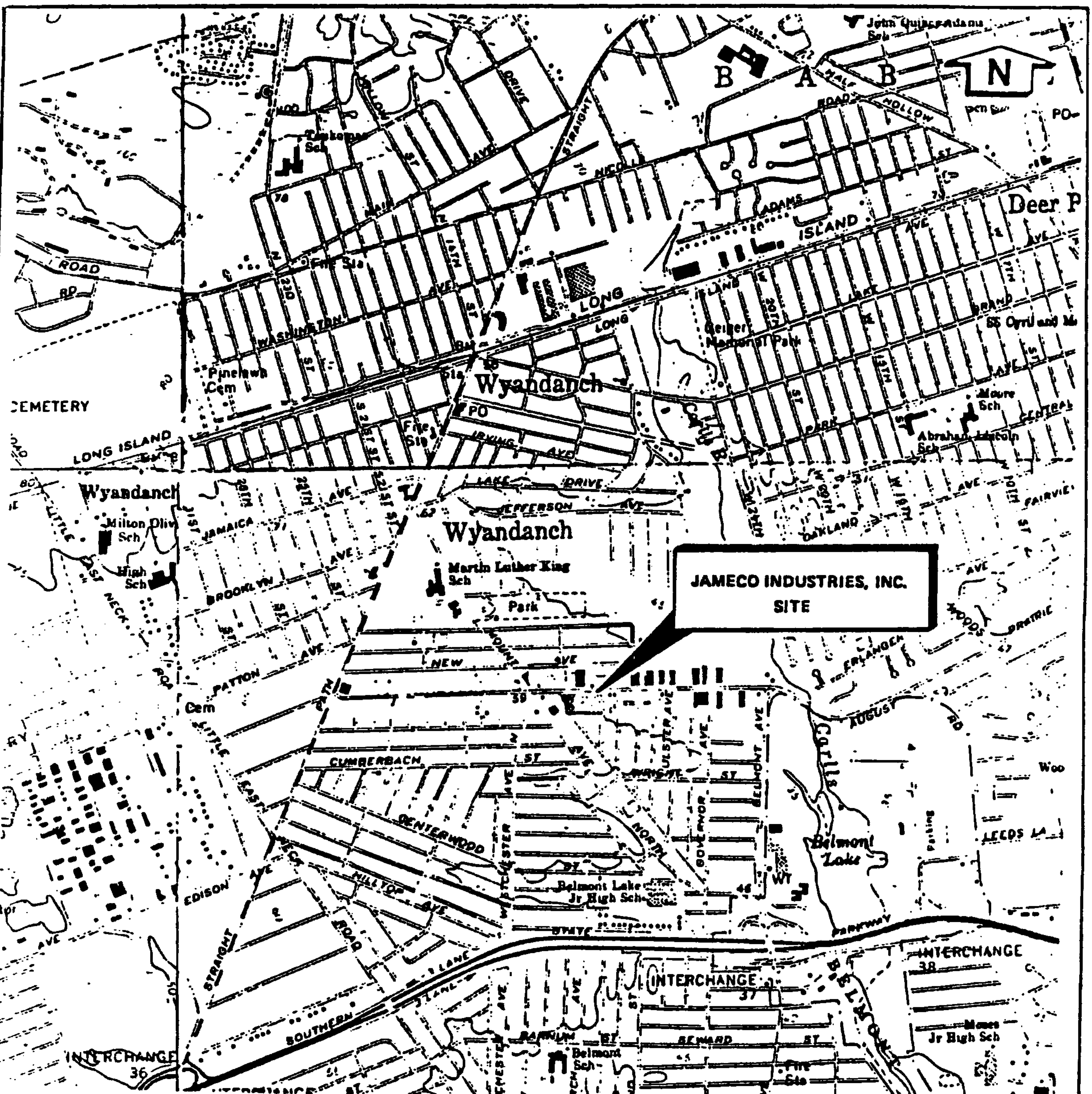
This section includes documentation records and work sheets required to develop Hazard Ranking System (HRS) scores. In addition, two EPA forms regarding preliminary assessment and site inspection have been completed and are included as required.

Documents included in this section are:

1. Preliminary Hazard Ranking System (HRS) Work Sheets
2. Documentation Records for HRS
3. EPA Form 2070-12 (Preliminary Assessment)
4. EPA Form 2070-13 (Site Inspection Report)

Forms were prepared as completely as possible using information available from private, county, state and federal agency files/sources. Values assigned to HRS rating factors are designated with a circle or a square reflecting complete or incomplete/inadequate data, respectively. The Suffolk County Department of Health Services files and the New York State Department of Law files provided the most site specific data. An on-site survey and interview was denied by Jameco Industries, Inc. Information provided in the Documentation Records for HRS are referenced and copies of references are included in Appendix B. Sources of information on the site are listed in Table 1.

//



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SCALE

COORDINATES

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LONG. 73° 21' 27"

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DEPARTMENT OF ENVIRONMENTAL CONSERVATION NEW YORK STATE

Prepared for
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233
Henry G. Williams, Commissioner

Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E.
Director

Approved

JAMECO INDUSTRIES, INC.
PHASE I INVESTIGATION
SITE LOCATION MAP

Prepared by
WOODWARD—CLYDE CONSULTANTS, INC.
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
NEW YORK, NEW YORK

DR BY:	TJD	SCALE:	AS SHOWN	PROJ NO	82C4548-3
CK'D BY:	LEW	DATE	5 FEB 1986	FIG NO	1

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HRS Worksheet

2.1 Preliminary HRS Work Sheets

Facility name: Jameco Industries, Inc.

Location: 248 Wyandanch Avenue, Wyandanch

EPA Region: II

Person(s) in charge of the facility: Israel Gajer, Vice-President

Name of Reviewer: L. Wade

Date: 14 February 1986

General description of the facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Jameco Industries, Inc. is an electroplating facility operating at the site since 1964. From 1964 to 1975 wastes generated from cleaning and electroplating processes were discharged to on-site sludge lagoons. Waste generated include heavy metals and volatile organic compounds. In 1975, the sludge lagoons were abandoned and replaced by a disposal system consisting of 48 leaching pools. Discharge from Jameco has often exceeded limits established in their SPDES Permit. Ground water is the primary route of concern.

Scores: S_M = 54.32 S_{gw} = 93.33 S_{sw} = 10.91 S_a = 0

S_{FE} = N/A

S_{DC} = 0

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	**Assigned Value (Circle One)**	**Multi-plier**	**Score**	**Max. Score**	**Ref. (Section)**
1 Observed Release	0 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2	6	6	
Net Precipitation	0 1 2 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 3	1	3	3	
Physical State	0 1 2 3	1	3	3	
	Total Route Characteristics Score		14	15	
3 Containment	0 1 2 3	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
	Total Waste Characteristics Score		26	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	40	40	
	Total Targets Score		49	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			53508	57,330	
7 Divide line 6 by 57,330 and multiply by 100	S_{gw} = 93.33				

FIGURE 2
GROUND WATER ROUTE WORK SHEET

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Surface Water Route Work Sheet					
Rating Factor	**Assigned Value (Circle One)**	**Multi-plier**	**Score**	**Max. Score**	**Ref. (Section)**
1 Observed Release	0 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 3	2	4	6	
Physical State	0 1 2 3	1	3	3	
	Total Route Characteristics Score		9	15	
3 Containment	0 1 2 3	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
	Total Waste Characteristics Score		26	26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 3	2	4	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score		10	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7020	64,350	
7 Divide line 6 by 64,350 and multiply by 100	S_{sw} = 10.91				

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Release	0 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S_a = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
[4] Multiply [1] x [2] x [3]				35,100	
[5] Divide line [4] by 35,100 and multiply by 100	S_a = 0				

FIGURE 9
AIR ROUTE WORK SHEET

	s	s^2
Groundwater Route Score (S_{gw})	93.33	8710.49
Surface Water Route Score (S_{sw})	10.91	119.03
Air Route Score (S_a)	0.0	0.0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		8829.52
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		93.97
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}\,/\,1.73 = S_M =$		54.32

FIGURE 10
WORKSHEET FOR COMPUTING S_M

N/A

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
	Total Targets Score			24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100	S_{FE} =				

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	1	0	3	8.2
3 Containment	0 15	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	20	20	
Distance to a Critical Habitat	0 1 2 3	4	0	12	
Total Targets Score			20	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 0			

FIGURE 12
DIRECT CONTACT WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Incident	0 45	1	0	45	8.1
If line [1] is 45, proceed to line [4] If line [1] is 0, proceed to line [2]					
[2] Accessibility	0 1 2 3	1	0	3	8.2
[3] Containment	0 15	1	15	15	8.3
[4] Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
[5] Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	20	20	
Distance to a Critical Habitat	0 1 2 3	4	0	12	
Total Targets Score			20	32	
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]			0	21,600	
[7] Divide line [6] by 21,600 and multiply by 100	S_{DC} = 0				

FIGURE 12
DIRECT CONTACT WORK SHEET

2.2 Documentation Records for HRS

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: Jameco Industries, Inc.

LOCATION: 248 Wyandanch Avenue, Wyandanch, N.Y.

DATE SCORED: 14 February 1986

PERSON SCORING: L. Wade

PRIMARY SOURCE(S) OF INFORMATION (e. g., EPA region, state, FIT, etc.):

Suffolk County Department of Health Services (SCDHS)
Off-site inspection conducted by Woodward-Clyde Consultants, Inc. (WCCI)
New York State Department of Law (NYS DOL)

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

See Section 5.0 - Data Adequacy

COMMENTS OR QUALIFICATIONS:

GROUND WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected (5 maximum):

None
Score - 0

Rationale for attributing the contaminants to the facility:

N/A

2. ROUTE CHARACTERISTICS

<u>Depth to Aquifer of Concern</u>

Name/description of aquifer(s) of concern:

Upper glacial and Magothy aquifers. Hydrogeologic data indicates hydraulic connection between these two aquifers. Where the Upper glacial aquifer lies directly on sandy beds of the Magothy aquifer, as the data indicates for this site, good vertical hydraulic conductivity exists between the two aquifers. (Jensen and Soren, 1974).

Depth(s) from the ground surface to the highest seasonal level of the saturated zone (water table(s)) of the aquifer of concern:

Estimated between 10 and 12 feet
(Leo M. Page, 1982; USGS Bay Shore West, NY Quad, 1979)

Depth from the ground surface to the lowest point of waste disposal/storage:

5 feet
(NYS Dept. of Law (DOL), 1981).

Score - 3

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

45 inches
(Figure 5, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982)

Mean annual lake or seasonal evaporation (list months for seasonal):

30 inches
Figure 4, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982)

Net precipitation (subtract the above figures):

15 inches
Score - 2

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Riverhead and Haven Soils (sandy loam and sand and gravel).
(USDA, 1975)
Score - 2

Permeability associated with soil type:

Greater than 10^{-3} cm/sec
(Table 2, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982)
Score - 3

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Sludge and liquid.
(NYS Dept. of Law, 1981).
Score - 3

3. CONTAINMENT

<u>Containment</u>

Method(s) of waste or leachate containment evaluated:
Surface Impoundment (sludge ponds (no liner) and leaching pools on site).
(Allie King Rosen and Fleming, 1981; Leo M. Page, 1982)

Method with highest score:

Surface Impoundment (3)
(Table 3, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982)

4. WASTE CHARACTERISTICS

<u>Toxicity and Persistence</u>

Compound(s) evaluated:	Toxicity	Persistence
Nickel, chromium, lead, copper	3	3
tetrachloroethylene	2	2
trichloroethylene	2	2

(NYSDOL, undated; SCDHS, 1984; Sax, 1979; Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982).

Compound with highest score:

Metals (18)

<u>Hazardous Waste Quantity</u>

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Total estimated discharge flow is 3.675×10^8 gallons
Score - 8

Basis of estimating and/or computing waste quantity:

Computed from daily flow estimates for years of operation (70,000 gpd x 5 days/week x 50 wks/yr. x yrs of operation (1964-1985)).
(Long Island Water Resources Commission, 1964; NYSDEC, 1980).

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5. TARGETS

<u>Ground Water Use</u>

Use(s) of aquifer(s) of concern within a 3 mile radius of the facility:
Known uses include: residential; industrial; commercial; drinking; and fire water (Long Island Water Resources Commission, 1964)
Score - 3

<u>Distance to Nearest Well</u>

Location of nearest well drawing from <u>aquifer of concern</u> or occupied building not served by a public water supply

Suffolk County Water Authority public supply wells are located on Wyandanch Ave. within 300 feet of the site. One of the on-site wells may have been used for drinking water although it is unknown whether or when its use was discontinued for such purposes. Private wells are located near the facility, but again, it is unknown whether they are being used for potable supply. (See identified water-supply wells below.)
(SCWA, 1986; USGS, 1979; L.I. Water Resources Commission, 1986)

Distance to above well or building:
Less than 500 feet
(NYS DOH, 1982; SCWA, 1986)

<u>Population Served by Ground Water Wells Within a 3-Mile Radius</u>

Identified water-supply well(s) drawing from <u>aquifer(s) of concern</u> within a 3-mile radius and populations served by each:
SCWA - 900,000 county-wide
Dix Hills Water District - 30,000
Private wells also exist in the site area
These wells are completed in the Upper Glacial and Magothy aquifers.
(NYS DOH, 1982; NYS DEC, 1984b)

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of <u>concern</u> within a 3-mile radius, and conversion to population (1.5 people per acre):
N/A
(NYS Dept. of Agriculture and Markets, 1985)

Total population served by ground water within a 3-mile radius:
Greater than 100,000. (Calculated from Donnelley Marketing poopulation data for 2-mile and 4-mile radius of the site).
(Donnelley Marketing, 1984)
Score - 40

SURFACE WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

No known surface water sampling has been conducted.
Score - 0

Rationale for attributing the contaminants to the facility:

N/A

2. ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Less than 1%
(USGS, Bay Shore West, NY Quadrangle, 1979).

Name/description of nearest downslope surface water:

Belmont Lake.
(USGS, Bay Shore West, NY Quadrangle, 1979).

Average slope of terrain between facility and above-cited surface water body in percent:

Less than 1%
(USGS, Bay Shore West, NY Quadrangle, 1979).

Is the facility located either totally or partially in surface water?

No
(USGS, Bay Shore West, NY Quadrangle, 1979).

Is the facility completely surrounded by areas of higher elevation?

No.
(USGS, Bay Shore West, NY Quadrangle, 1979).
Score - 0

1-Year 24-Hour Rainfall in Inches

3 inches
(Figure 8, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982)
Score - 2

Distance to Nearest Downslope Surface Water

Approximately 2800 feet.
(USGS, Bay Shore West, NY Quadrangle, 1979).
Score - 2

Physical State of Waste

Sludge and Liquid.
(NYS DOL, 1981).
Score - 3

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Surface Impoundment (sludge ponds and leaching pools).
Overflow of leaching pools reported (SCDHS, 1979a).

Method with highest score:

Surface Impoundment (3)
(Table 9, Uncontrolled Hazardous Waste Site Ranking System, A User's Manual; USEPA, 1982)

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

See Ground Water Route

Compound with highest score:

See Ground Water Route

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

See Ground Water Route

Basis of estimating and/or computing waste quantity:

See Ground Water Route

5. TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Recreation - Belmont Lake in Belmont Lake State Park within one mile
(USGS, Bay Shore West, NY Quadrangle, 1979).
Score - 2

Is there tidal influence?

No.
(USGS, Bay Shore West, NY Quadrangle, 1979)

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None (NYSDEC, 1986c)

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Less than 1/4 mile (1000 feet)
(NYSDEC, 1986b)

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

None
(NYS DEC, Division of Fish and Wildlife, Significant Habitats Unit, 1984)
Score - 2

Population Served by surface Water

Location(s) of water-suply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None known
(NYS Department of Health, 1982)

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

N/A

Total population served:

N/A

Name/description of nearest above water bodies:

N/A

Distance to above-cited intakes, measured in stream miles:

N/A
Score - 0

AIR ROUTE

1. OBSERVED RELEASE

Contaminants detected:

Documented data does not exist.
Score - 0

Date and location of detection of contaminants:

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

2. WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

N/A

Most incompatible pair of compounds:

N/A

Toxicity

Most toxic compound:

N/A

Hazardous Waste Quantity

Total quantity of hazardous waste:

See Ground Water Route

Basis of estimating and/or computing waste quantity:

See Ground Water Route

3. TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to ½ mi	0 to ¼ mi
183,635	13,794	3,842	

(Donnelley Marketing, 1984).

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

See Surface Water Route

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

See Surface Water Route

Distance to critical habitat of an endangered species, if 1 mile or less:

See Surface Water Route

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Approximately 300 feet
(USGS, Bay Shore West, NY Quadrangle, 1979).

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Approximately 2000 feet (less than 0.4 mile)
(USGS, Bay Shore West, NY Quadrangle, 1979).

Distance to residential area, if 2 miles or less):

Adjacent
(USGS, Bay Shore West, NY Quadrangle, 1979).

Distance to agricultural land in production within past 5 years, if 1 mile or less:

N/A
(NYS Department of Agriculture and Markets, 1985).

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

N/A
(NYS Department of Agriculture and Markets, 1985).

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

No
(NYS Office of Parks, Recreation and Historic Preservation, 1984)

FIRE AND EXPLOSION

1. CONTAINMENT

Hazardous substances present:

See Ground Water Route

Type of containment, if applicable:

N/A

2. WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

N/A

Ignitability

Compound used:

N/A

Reactivity

Most reactive compound:

N/A

Incompatibility

Most incompatible pair of compounds:

N/A

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

See Ground Water Route

Basis of estimating and/or computing waste quantity:

See Ground Water Route

3. TARGETS

Distance to Nearest Population

Adjacent to site; within 200 feet.
(USGS, Bay Shore West, NY Quadrangle, 1979).

Distance to Nearest Building

Less than 200 feet
(USGS, Bay Shore West, NY Quadrangle, 1979).

Distance to Sensitive Environment

Distance to wetlands:

See Surface Water Route

Distance to critical habitat:

See Surface Water Route

Land Use

Distance to commercial/industrial area, if 1 mile or less:

See Air Route

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

See Air Route

Distance to residential area, if 2 miles or less:

See Air Route

Distance to agricultural land in production within past 5 years, if 1 mile or less:

See Air Route

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

See Air Route

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

See Air Route

Population Within 2-Mile Radius

61,985
(Donnelley Marketing, 1984).

Buildings Within 2-Mile Radius

17,490
(Donnelley Marketing, 1984).

DIRECT CONTACT

1. OBSERVED INCIDENT

Date, location, and pertinent details of incident:

None known

2. ACCESSIBILITY

Describe type of barrier(s):

A fence encloses the leaching pool area and surrounds much of the site area. There is no security guard. (SCDHS, 1986).

3. CONTAINMENT

Type of containment, if applicable:

Surface impoundment (leaching pools)
(Pim, 1987)

4. WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

See Ground Water Route

Compound with highest score:

See Ground Water Route

5. TARGETS

<u>Population within one-mile radius</u>

See Air Route

<u>Distance to critical habitat (of endangered species)</u>

See Surface Water Route

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2.3 EPA Form 2070-12

(Preliminary Assessment)

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: NY
02 SITE NUMBER: NYD002415404

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): Jameco Industries, Inc.
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 248 Wyandanch Avenue
03 CITY: Wyandanch
04 STATE: NY
05 ZIP CODE: 11798
06 COUNTY: Suffolk
07 COUNTY CODE:
08 CONG DIST:
09 COORDINATES LATITUDE: 40 44 31.0 LONGITUDE: 073 21 37.0
10 DIRECTIONS TO SITE (Starting from nearest public road): East on Southern State Parkway, exit NE onto Straight Path, continue for almost one mile and turn right (east) onto Wyandanch Avenue. Site is located approximately 0.5 mile on right.

III. RESPONSIBLE PARTIES

01 OWNER (If known): Jameco Industries, Inc.
02 STREET (Business, mailing, residential): 248 Wyandanch Avenue
03 CITY: Wyandanch
04 STATE: NY
05 ZIP CODE: 11798
06 TELEPHONE NUMBER: (516) 643-5300
07 OPERATOR (If known and different from owner): Israel Gajer, Vice President
08 STREET (Business, mailing, residential): same as above
09 CITY:
10 STATE:
11 ZIP CODE:
12 TELEPHONE NUMBER: ( )

13 TYPE OF OWNERSHIP (Check one)
- [x] A. PRIVATE
- [ ] B. FEDERAL: ______ (Agency name)
- [ ] C. STATE
- [ ] D. COUNTY
- [ ] E. MUNICIPAL
- [ ] F. OTHER: ______ (Specify)
- [ ] G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
- [ ] A. RCRA 3001 DATE RECEIVED: / / (MONTH DAY YEAR)
- [ ] B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / (MONTH DAY YEAR)
- [ ] C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
- [ ] YES
- [x] NO

DATE: 1 / 8 / 85 (MONTH DAY YEAR)

On site inspection refused

BY (Check all that apply)
- [ ] A. EPA
- [ ] B. EPA CONTRACTOR
- [ ] C. STATE
- [x] D. OTHER CONTRACTOR
- [ ] E. LOCAL HEALTH OFFICIAL
- [ ] F. OTHER: ______ (Specify)

CONTRACTOR NAME(S): Woodward-Clyde Consultants, Inc.

02 SITE STATUS (Check one)
- [x] A. ACTIVE
- [ ] B. INACTIVE
- [ ] C. UNKNOWN

03 YEARS OF OPERATION: 1964 (BEGINNING YEAR) / present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Substances of primary concern include heavy metals and volatile organic compounds.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Potential ground-water contamination and resultant public health threat for population using the water.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
- [ ] A. HIGH (Inspection required promptly)
- [x] B. MEDIUM (Inspection required)
- [ ] C. LOW (Inspect on time available basis)
- [ ] D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT: Jim Pim
02 OF (Agency/Organization): Suffolk County Dept. of Health Services
03 TELEPHONE NUMBER: (516) 451-4633
04 PERSON RESPONSIBLE FOR ASSESSMENT: L. Wade
05 AGENCY:
06 ORGANIZATION: Woodward-Clyde Consultants, Inc.
07 TELEPHONE NUMBER: (212) 926-2575
08 DATE: 2 / 17 / 86 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYD002415404

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER ______ (Specify)
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS ______
CUBIC YARDS ______ unknown
NO OF DRUMS ______

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☒ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☒ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☒ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	unknown		
BAS	BASES	unknown		
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	Chromium (total, hexavalent)				
	Nickel				
	Zinc				
	Iron				
SOL	tetrachloroethylene				
	trichloroethylene				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYS Department of Law Files (NYS DOL)
• Suffolk County Department of Health Services Files (SCDHS)
Bay Shore West, NY Quadrangle, USGS, 1979 (USGS)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYD002415404

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [X] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100,000 within 3-mile radius
04 NARRATIVE DESCRIPTION

Ground-water contamination exists in the immediate site area (1976, 1979, 1981, 1984). It has been reported that the on-site production well at Jameco is contaminated with volatile organics. Analytical data is available regarding levels of contamination in wastewater discharged to on-site lagoons.

01 [X] B. SURFACE WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

Belmont Lake is approximately 0.5 mile from the Jameco site.

01 [X] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE: 9-20-79) [ ] POTENTIAL [X] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

During an inspection conducted by the SCDHS, a plume of yellow gas was observed from a stack at the Jameco facility.

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS — 02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

No Information Available (NIA)

01 [ ] E. DIRECT CONTACT — 02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

NIA

01 [X] F. CONTAMINATION OF SOIL — 02 [X] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: ______ (Acres)
04 NARRATIVE DESCRIPTION 1974, 1981, 1984

On-site soil contamination observed (chemical analysis) on more than one occasion.

01 [X] G. DRINKING WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100,000 within 3-mile radius.
04 NARRATIVE DESCRIPTION

Contaminated wastewater has been discharged to on-site leaching pools. Contamination of private wells is known to exist in site area.

01 [ ] H. WORKER EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

NIA

01 [X] I. POPULATION EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

Greater than 100,000 people depend on ground water as a sole source of potable supply within a 3-mile radius of site.

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY
02 SITE NUMBER: NYD002415404

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (include name(s) of species)

N/A

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff standing liquids/leaking drums) — 02 ☒ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______
04 NARRATIVE DESCRIPTION

Overflowing industrial waste leaching pools (1979); sludge spill (1975)

01 ☒ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION

It has been alleged that on-site leaching pools overflowed on occasion to neighboring property. Adequate documentation for this allegation is lacking.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☒ OBSERVED (DATE: 1979) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Hazardous wastes discharged to leaching pools on site.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Potential for ground water and surface water contamination.

III. TOTAL POPULATION POTENTIALLY AFFECTED: Over 100,000 people reside within a 3-mile radius of site

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDOL Files
SCDHS Files

EPA FORM 2070-12 (7-81)

2.4 EPA Form 2070-13

(Site Inspection Report)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYD002045404

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	Jameco Industries, Inc.
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER	248 Wyandanch Avenue
03 CITY	Wyandanch
04 STATE	NY
05 ZIP CODE	11798
06 COUNTY	Suffolk
07 COUNTY CODE	
08 CONG DIST	
09 COORDINATES LATITUDE	40 44 31.0
LONGITUDE	073 21 21.0
10 TYPE OF OWNERSHIP (Check one)	☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION (MONTH DAY YEAR)	OFF-SITE 1, 8, 85
02 SITE STATUS	☒ ACTIVE ☐ INACTIVE
03 YEARS OF OPERATION	1964 (BEGINNING YEAR) / present (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply) Off-site inspection (On-site inspection refused).

☐ A. EPA ☐ B. EPA CONTRACTOR ______ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ______ (Name of firm)

☐ E. STATE ☐ F. STATE CONTRACTOR ______ (Name of firm) ☒ G. OTHER Woodward-Clyde Consultants, Inc. (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
C. Motta	Staff Geologist	Woodward-Clyde Consultants, Inc.	(212) 926-2878

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☐ PERMISSION ☐ WARRANT		

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
J. Pim	Suffolk County Dept. of Health Services	(516) 451-4633

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE (MONTH DAY YEAR)
L. Wade		Woodward-Clyde Consultants, Inc.	(212) 926-2878	2, 17, 86

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYD002454YY

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER ________ (Specify)
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS ________ unknown
CUBIC YARDS ________
NO. OF DRUMS ________

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☒ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☒ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☒ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	unknown		
BAS	BASES	unknown		
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	Chromium (total, hexavalent)				
	Nickel				
	Zinc				
	Iron				
SOL	tetrachloroethylene				
	trichloroethylene				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYS Department of Law (NYS DOL) Files
Suffolk County Department of Health Services (SCDHS) Files
Bay Shore West, NY Quadrangle, USGS, 1979 (USGS)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD002415404

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 100,000 w/in 3 mile radius
02 [ ] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

Ground-water contamination exists in the immediate site area (1976, 1979, 1981, 1984). It has been reported that the on-site production well at Jameco is contaminated with volatile organics. Analytical data is available regarding levels of contamination in wastewater discharged to on-site lagoons.

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: ______
02 [ ] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

Belmont Lake is approximately 0.5 mile from the Jameco site.

01 [X] C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: ______
02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

During an inspection conducted by the SCDHS, a plume of yellow gas was observed from a stack at the Jameco facility.

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: ______
02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

No Information Available (NIA)

01 [ ] E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: ______
02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NIA

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: ______ (Acres)
02 [X] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION 1979, 1981, 1984

On-site soil contamination observed (chemical analytical data) on more than one occasion.

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 100,000 w/in 3-mile radius
02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

Contaminated wastewater has been discharged to on-site leaching pools. Contamination of private wells is known to exist in site area.

01 [ ] H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: ______
02 [ ] OBSERVED (DATE: ______) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NIA

01 [X] I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: ______
02 [ ] OBSERVED (DATE: ______) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

Greater than 100,000 people depend on ground water as a sole source of potable supply within a 3-mile radius of site.

EPA FORM 2070-13 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

EPA

I. IDENTIFICATION
01 STATE: NY
02 SITE NUMBER: NYD002415404

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (include name(s) of species)

N/A

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

Overflowing industrial waste leaching pools (1979); sludge spill (1975).

01 ☒ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION

It was alleged that on-site leaching pools overflowed on occasion to neighboring property. Adequate documentation for this allegation is lacking.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: ____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☒ OBSERVED (DATE: 1979) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Hazardous wastes discharged to leaching pools on site.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Inadequate drum storage area; improper storage of chrome plating solution outside of building (1979); on-site sludge spill; allegations of overflow of leaching pools on site; and violations of SPDES permit.

III. TOTAL POPULATION POTENTIALLY AFFECTED: Over 100,000 people reside within a 3-mile radius of site.

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDOL Files
SCDHS Files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD002415414

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify) SPDES	NY-0081540			
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☒ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☒ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

☐ A. INCENERATION
☐ B. UNDERGROUND INJECTION
☐ C. CHEMICAL/PHYSICAL
☐ D. BIOLOGICAL
☐ E. WASTE OIL PROCESSING
☐ F. SOLVENT RECOVERY
☐ G. OTHER RECYCLING/RECOVERY
☐ H. OTHER (Specify)

05 OTHER

☒ A. BUILDINGS ON SITE

06 AREA OF SITE

~ 6 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

On-site lagoons without proper lining.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

Fence around site.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

NYSDOL Files
SCDHS Files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: NYD002405404

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☐	B. ☒
NON-COMMUNITY	C. ☐	D. ☒

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☒	B. ☐	C. ☒
D. ☒	E. ☐	F. ☐

03 DISTANCE TO SITE
A. < 0.05 (mi)
B. < 0.05 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING
☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)
☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available)
☐ D NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER: Greater than 100,000 within 3-mile radius

03 DISTANCE TO NEAREST DRINKING WATER WELL: < 0.05 (mi)

04 DEPTH TO GROUNDWATER: Less than 10 (ft)

05 DIRECTION OF GROUNDWATER FLOW: E - SE

06 DEPTH TO AQUIFER OF CONCERN: between 5 - 10 (ft)

07 POTENTIAL YIELD OF AQUIFER: ______ (gpd)

08 SOLE SOURCE AQUIFER: ☒ YES ☐ NO

09 DESCRIPTION OF WELLS (including useage, depth, and location relative to population and buildings)

On-site production and diffusion well.
SCWA deep water supply wells within 200-300 feet of site.
Private wells.

10 RECHARGE AREA
☒ YES
☐ NO
COMMENTS: Belmont Lake in direction of ground-water flow.

11 DISCHARGE AREA
☒ YES
☐ NO
COMMENTS: Discharge area believed to be approximately 0.5 mile from site.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE
☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES
☐ C. COMMERCIAL, INDUSTRIAL
☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Carlls River	☐	<0.5 (mi)
Belmont Lake	☐	~0.5 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	~~THREE (3)~~ FOUR (4) MILES OF SITE
A. 13794 NO. OF PERSONS	B. 61,985 NO. OF PERSONS	C. 183,635 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: ~ .03 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: >17,490

04 DISTANCE TO NEAREST OFF-SITE BUILDING: ~ .03 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

The site is located within a densely populated area of Suffolk County. Few industries exist in the site area. Belmont Lake State Park is less than 0.5 mile from Jameco Industries, Inc.

EPA FORM 2070-13 (7-81)

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EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: NYD002415404

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)
☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☒ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)
☒ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK: ~1350 (ft)
04 DEPTH OF CONTAMINATED SOIL ZONE: Possibly at least 5-10 (ft)
05 SOIL pH: unknown

06 NET PRECIPITATION: 15 (in)
07 ONE YEAR 24 HOUR RAINFALL: 3 (in)
08 SLOPE — SITE SLOPE: <1 % | DIRECTION OF SITE SLOPE: S-SE | TERRAIN AVERAGE SLOPE: <1 %

09 FLOOD POTENTIAL: SITE IS IN N/A YEAR FLOODPLAIN
10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)
ESTUARINE: A. N/A (mi) | OTHER: B. < 0.2 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species): N/A (mi)
ENDANGERED SPECIES:

13 LAND USE IN VICINITY
DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. <.05 (mi)	Adjacent-residential B. ~.02 (mi)	C. N/A (mi)	D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is relatively flat. Site is at higher elevation than Belmont Lake State Park. Site slope is towards Belmont Lake.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDOL Files
SCDHS Files
USGS, 1979
Donnelley Marketing (population data)
Jensen and Soren, 1974
NYSDEC
NYS Dept. of Agriculture and Markets
HRS Users Manual

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	NYD002411420

II. SAMPLES TAKEN

SAMPLE TYPE		01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	X		See Appendix B of this Report	
SURFACE WATER				
WASTE				
AIR				
RUNOFF				
SPILL				
SOIL	X		See Appendix B	
VEGETATION				
OTHER	X		See Appendix B	

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	N/A

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF ______ (Name of organization or individual)

03 MAPS ☐ YES ☐ NO

04 LOCATION OF MAPS ______

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

The Suffolk County Department of Health Services and the NYS Department of Law has information regarding sampling and analysis for the Jameco site.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYS Department of Law Files
SCDHS Files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD002415404

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Jameco Industries, Inc.	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
348 Wyandanch Avenue	

05 CITY	06 STATE	07 ZIP CODE
Wyandanch	NY	11798

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SCDHS Files
NYS DOL Files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD002415464

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Israel Gajer (Vice-President)	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
248 Wyandanch Avenue	

05 CITY	06 STATE	07 ZIP CODE
Wyandanch	NY	11798

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SCDHS Files

NYS DOL Files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD003415404

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Jameco Industries, Inc.	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
248 Wyandanch Avenue	

05 CITY	06 STATE	07 ZIP CODE
Wyandanch	NY	11798

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYS Department of Law Files
SCDHS Files

EPA FORM 2070-13 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

EPA

I. IDENTIFICATION
01 STATE: NY
02 SITE NUMBER: NYD002415461

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☒ E. CONTAMINATED SOIL REMOVED — 02 DATE April 1975 — 03 AGENCY ______
04 DESCRIPTION In 1975 sludge from on-site lagoons was repertedly excavated and hauled off site.

01 ☐ F. WASTE REPACKAGED — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE ______ — 03 AGENCY ______
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD 0024 [illegible]

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☒ Z. AREA EVACUATED — 02 DATE April 1975 03 AGENCY ______
04 DESCRIPTION Lagoon area excavated and sludge reportedly hauled off site.

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYS Department of Law Files
SCDHS Files

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	NYD[illegible]5404

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

Complaint, 1981

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYS Department of Law Files

EPA FORM 2070-13 (7-81)

TABLE I

SOURCES OF INFORMATION

Data Gathered	Office/ Agency	Location	Contact Person	Date of Visit	Date of Phone Conversation	Telephone Number
Critical Habitats	NYSDEC Division of Fish & Wildlife Significant Habitats Unit	Wildlife Resources Center Delmar, NY 12054	Larry Brown	12-11-84	several, 12/84	(518) 439-7486
Site Specific Information	NYSDEC Division of Solid and Hazardous Waste, Bureau of Municipal Waste	3 Vatrano Road Albany, NY	Hans Dirzuweit Earl Barcomb	12-12-84- 12-14-84	several, 12/84	(518) 457-2051
Historic/ Landmark Sites	NYS Dept. of Parks, Recreation & Historic Preservation Division for Historic Preservation	Agency Bldg #1 Empire State Plaza Albany, NY 12238	Lenore Kuwick	12-12-84	various, 12/84	(518) 474-3176
Wetlands	NYSDEC Division of Fish & Wildlife, Habitat Inventory Unit	Albany, NY	Sharon O'Connor		12/84	(518) 457-3431
Freshwater & Coastal Wetlands in Nassau & Suffolk Counties	NYSDEC-Region I	Bldg #40 SUNY Stony Brook, NY 11794	Mike Fiscina		several, 12/84; 1/85	(516) 751-1389
Freshwater and Coastal Wetlands in Kings County	NYSDEC-Region II	2 World Trade Center Rm 6126 New York, NY 10047	Joe Pane		various, 12/84	(212) 488-2758
Freshwater and Coastal Wetlands in Albany and Rensselaer Counties	NYSDEC-Region IV	Rt. 10, Stamford, New York 12167	Maynard Vance		various, 12/84	(607) 652-7364
Site Specific Information	NYS Dept. of Health Division of Health Risk Control, Bureau of Toxic Substance Assessment	Corning Tower Bldg., ESP Albany, NY 12237	Ron Tramontano Steve Bates	12-12-84	various, 12/84	(518) 473-8427
Site Specific Information-Rensselaer County Sites	NYS Law Department	Justice Bldg.-Rm 245 Albany, NY 13224	Michael Moore	12-12-84	various 12/84; 2/85	(518) 474-1190
Agricultural/ Prime Agricultural Land in Production	NYS Dept. of Agriculture and Markets, Divison of Rural Affairs	State Campus Bldg. No. 8, Room 805 Albany, NY 12235	Louise Inglis	12-13-84	various, 12/84	(518) 457-2713
Water Resources	NYSDEC Division of Water Resources	50 Wolf Road Albany, NY 12233		12-14-84	various, 12/84	(518) 457-5668

TABLE I

SOURCES OF INFORMATION
(continued)

Data Gathered	Office/ Agency	Location	Contact Person	Date of Visit	Date of Phone Conversation	Telephone Number
Site Specific Information	NYSDEC Division of Solid & Hazardous Waste	50 Wolf Rd. Albany, NY 12233	Anita Grikstas	12-14-84		(518) 457-0639
Site Specific Information-Rensselaer County Sites	Rensselaer County Health Dept.	County Office Bldg. 1600 7th Ave. Troy, NY 12180	John Sheehan	12-27-84	several, 12/84; 2/85	(518) 270-2670
Site Specific Information-Albany County Sites	Albany County Health Dept.	South Ferry and Green Streets Albany, NY 12201	Cliff Forando Steve Lukowski Ben Pierson	12-28-84	several, 12/84	(518) 445-7835
Site Enforcement	NYSDEC Division of Environmental Enforcement	202 Mamaroneck Ave. White Plains, NY 10601	Mike Tone		several, 12/84; 1/85	(914) 761-6660
USEPA "ERRIS" Site Numbers	USEPA-Region II Hazardous Waste Site Branch	26 Federal Plaza New York, NY 10278	Carol Peterson Kathy Moyik		several, 12/84; 1/85	(212) 264-4197 (212) 264-8672
Site Specific Information-Albany and Rensselaer County Sites	NYSDEC-Region IV	2176 Guilderland Ave. Schenectady, NY 12306	George Elston Mike Styk		various, 12/84; 1/85	(518) 382-0680
Site Specific Information-Suffolk County Sites	Suffolk Co. Dept. of Health Services	15 Horse Block Pl. Farmingville, NY	Frank Randall Jim Pim Jim Maloney		various 11/84; 12/84	(516) 451-4633
Site Specific Information-Nassau County Sites	Nassau Co. Dept. of Health	240 Old Country Road Mineola, NY	Joe Schechter Larry Sang	12/13/84		(516) 535-2406
Water Supply in Suffolk Co.	Suffolk Co. Dept. of Health Services	225 Rabro Dr. East Hauppauge, NY 11788	Paul Ponturo Richard Meyer		12/7/84	(516) 348-2886
Site Specific Information-Kings County Sites	NYSDEC Region II	2 World Trade Center New York, NY	Armand DeAngelis Sal Ervolina	12/7/84	(212) 488-3862 12/26/84	
Site Specific Information-Kings County Sites	NYCDEP	2358 Municipal Bldg. New York, NY 10007	Tim Slauson Anthony Ianarelli Stacy Moriates Stan Cepenberg Kim Sparber		12/27/84 12/20/84 12/7/84 12/10/84 12/10/84	(212) 669-8934 (212) 669-8939 (212) 566-8977 (212) 566-2717 (212) 566-1647
Site Specific Information-NYSDEC Region I & II Sites	NYSDEC Region I	Building 40 SUNY at Stonybrook	Bob Schneck Bob Becherer	various 12/84		(515) 751-7900
Well Points NYSDEC Region I & II Sites	NYSDEC Region I Well Points	Building 40 SUNY at Stonybrook	Tony Candella	12/12/84		(516) 751-7900

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3.0
SITE DESCRIPTION

Jameco Industries, Inc. is located in western Suffolk County approximately 0.5 mile north of the Southern State Parkway. The approximately 6-acre site on Wyandanch Avenue is in a mixed-industrial/commercial/residential area.

The site consists of the main process building with offices, a warehouse, above ground tanks, an area of abandoned and filled sludge beds, and a leaching field composed of 48 leaching pools. Two wells are located on site: a production well and a diffusion well.

The Jameco facility is at an elevation of 50 feet and is relatively flat. Drainage from the site is east-southeasterly towards Carlls River and Belmont Lake. The site is located less than 0.5 mile from Belmont Lake State Park which is at an average elevation of 35 feet. Carlls River, also located less than 0.5 mile from the site, drains into Belmont Lake, flows through wetlands less than one mile downstream, and drains into other surface water bodies before ultimate drainage into Great South Bay. Belmont Lake and the associated park land is used for recreation.

The site is located in a densely populated area of Suffolk County where more than 100,000 people within a 3-mile radius of the site depend on ground water as a sole source of potable supply. The Suffolk County Water Authority operates two municipal supply wells within a few hundred feet of the Jameco site and private supply wells are located within one mile of the site.

The closest residence is located adjacent to Jameco's southern property boundary. Some residences depend on private wells in this area downgradient of the Jameco site. Half a dozen schools are located within a one-mile radius of the facility.

4.1 SITE AREA SURFACE FEATURES

The Jameco site occupies a relatively flat 6-acre parcel of land in western Suffolk County. The site elevation is 50 feet above mean sea level without major topographic changes in the vicinity. A modest slope of less than 1 percent exists between the facility and natural downslope surface water bodies. Carlls River flows into Belmont Lake approximately 0.5 mile downgradient of the site. Carlls River flows from Belmont Lake through a freshwater wetland less than 1 mile south of the lake into Southards Pond and ultimately into Great South Bay.

The site is situated in a relatively densely populated residential area. A small wooded area lies immediately west of the site and the Belmont Lake State Park is only 2000 feet east of Jameco. Other industrial facilities are located north-northeast of the site on Wyandanch Avenue. Several cemeteries are located about one mile west of the Jameco facility. Half a dozen schools are located within one mile of the site.

4.2 SITE HYDROGEOLOGY

4.2.1 <u>Ground-Water Occurrence</u>

Ground water in the site area occurs primarily in unconsolidated sediments of Pleistocene and Upper Cretaceous age. These sediments are approximately 1350 feet thick and they overlie Precambrian crystalline bedrock (Jensen and Soren, 1974). The low hydraulic conductivity bedrock is considered to be the bottom of the ground-water reservoir (Jensen and Soren, 1974).

The site is underlain by Pleistocene glacial outwash deposits that are approximately 110 feet thick. The aquifer in these deposits is referred to as the Upper glacial aquifer (Jensen and Soren, 1974). The Pleistocene glacial deposits overlie fluvio/deltaic deposits of the Upper Cretaceous Magothy Formation (approximately 700 feet in thickness) in which the Magothy aquifer occurs. Good vertical hydraulic conductivity exists between the Upper glacial and Magothy aquifers. Together these aquifers comprise the principal aquifer (Jensen and Soren, 1974).

The Magothy Formation unconformably overlies the Upper Cretaceous clay member of the Raritan Formation which in turn overlies and confines the Upper Cretaceous Lloyd sand member of the Raritan Formation. The Lloyd sand member, which constitutes the deep confined aquifer in the site area, overlies Precambrian crystalline bedrock.

The depth to ground water below the site is about 10 feet (Leo M. Page, 1982). The horizontal direction of ground-water flow in both the principal aquifer and deep confined aquifer is south-southeast (Jensen and Soren, 1974). Ground water in the Upper glacial aquifer in the site area is likely to be under water table conditions. Water in the upper portion of the Magothy aquifer is also likely to be under water table conditions but it becomes more confined with depth. Recharge to the deep aquifer is by slow leakage down through overlying sediments.

4.2.2 Ground-Water Quality

The concentrations of chemical parameters tested for in ground water throughout much of Suffolk County are generally below the recommended maximum limits established by the U.S. Public Health Service (Jensen and Soren, 1974). However, it is now well established that local ground-water quality problems exist, due to both natural and man-made causes. The vertical hydraulic connection between the Upper glacial and Magothy aquifers throughout most of Suffolk County poses an additional threat to ground-water quality once the upper water table becomes contaminated.

Local contamination by domestic waste, industrial waste and rock salt has caused some alteration of the regional ground-water quality. Salt water intrusion has not been reported in the site area. In western Suffolk County particularly, high nitrate concentrations have been discovered in both the principal aquifer and the deep confined aquifer (Franke and McClymonds, 1972). The primary source of nitrate contamination is believed to be sanitary systems, particularly cesspools, and in some areas, the use of fertilizers.

4.2.3 Ground-Water Use

Ground-water is heavily relied on in this region of Suffolk County mainly for potable supply. The Suffolk County Water Authority (SCWA) operates several public supply wells within a 3-mile radius of the site. Two deep SCWA muncipal wells are located within a few hundred feet of the Jameco Facility (NYS DEC 1984b). The SCWA serves approximately 1 million people county-wide. The Dix Hills Water District also maintains public supply wells in the vicinity and serves 30,000 people within a 3-mile radius of the site. An unknown number of private supply wells are also located within a 1-mile radius of the site. Ground water from wells within 3 miles of the site serve residential, municipal, commercial and industrial needs.

Jameco Industries Inc. has two wells on its property: a production and a diffusion well. In the application originally filed for Jameco (LIWRC, 1964), one of the on site wells was also indicated for use as potable supply. It is believed that water from the on-site well is no longer used for potable needs.

4.3 PAST SAMPLING AND ANALYSIS

Soil, wastewater effluent, leaching pool and ground water samples have been collected and analyzed on various occasions during the period 1979 to 1984. Results of analyses are located in Appendix B.

Ground-water samples analyzed from private wells (located in the downgradient direction of ground-water flow) in 1976 and 1979 indicate high levels of hexavalent chromium, trichloroethane and tetrachloroethylene (Belli, 1977; SCDHS 1979c; SCDHS, 1980).

Analyses of ground water samples collected during boring installation by Allee, King, Rosen & Fleming in 1981 may not accurately reflect water quality at the site. Water samples were collected during boring installation upon reaching the water table, rather than from a properly installed ground water quality monitoring well.

Ground water and leaching pool samples collected at Jameco's property in 1983 showed concentrations of volatile organics including trichloroethylene and tetrachloroethylene. Heavy metals have also been detected in soil and leaching pool samples collected at the site.

5.0
DATA ADEQUACY

Available data were somewhat adequate for the development of a preliminary HRS score for the Jameco Industries, Inc. site.

Data necessary to score Hazardous Waste Quantity for the Ground Water Route Work Sheet were inadequate or unavailable. A score of eight (8) was given for this factor based on the contaminated discharge flow for the years of operation and was indicated with a square on the worksheet. Ground water is the primary route of concern for this site.

The Surface Water Route in contrast, scored much lower primarily because available data did not indicate surface water use for drinking water. The Hazardous Waste Quantity was given a score of eight (8) based on available data and was indicated with a square on the worksheet.

6.1 OBJECTIVES

The objective of this proposed work plan is to collect additional field information required to adequately prepare a final HRS Score and develop conceptual remedial action designs and costs. The work plan for this site has been designed to primarily address questions concerning the nature and extent of soil and ground-water contamination, and to confirm the direction(s) of ground-water flow.

6.2 FIELD INVESTIGATION PLAN

6.2.1 Preliminary Site Investigations

A preliminary site investigation will be made initially to tentatively select the monitoring well locations, to evaluate the means of drill rig access in each case and to identify and contact property owners if access is required off site. It is estimated that approximately 2 person-days (2 people, one day) will be required for this work.

6.2.2 Geophysical Studies

As part of the on-site field investigation to characterize the hydrologic regime, a geophysical survey utilizing the terrain conductivity technique will be performed at the site. This technique has been utilized successfully in locating subsurface plumes of many different substances, including organic compounds and metals which are of concern at this site.

The geophysical survey will be conducted using the Geonics EM-31 terrain conductivity meter. This equipment is required in order to evaluate subsurface conditions at shallow exploration depths. Measurements will be taken in selected areas of the site to determine expected ranges of background or upgradient conductivity. Measurements will also be taken across the site and in the expected downgradient directions, both on and off site, if feasible, in the expected direction(s) of ground-water flow which is toward Belmont Lake. The EM-34 used to evaluate subsurface conditions at greater depths, is not recommended for use at this site. The many interferences that exist at this site preclude rational interpretation of any data gathered using the EM-34.

Readings will be taken at 3 meter and 6 meter exploration depths with the EM-31 to evaluate whether vertical or horizontal soil and ground-water contamination exists. The conductivity survey will also provide information necessary to delineate the near surface contamination plume that is likely to exist. The conductivity survey should also provide information for delineating the area of abandoned sludge beds. Following the preliminary site investigation, the proposed geophysical survey may require modification based upon site conditions.

It is estimated that a two-person team will require two days in the field to perform the conductivity survey, with readings taken at two depths at each measurement station. The data will be plotted on maps and contoured. This work is estimated to take one person three days to complete. These contour maps will provide the basis for delineating any contaminant plume and will provide information necessary to determine the exact location of the ground-water monitoring wells.

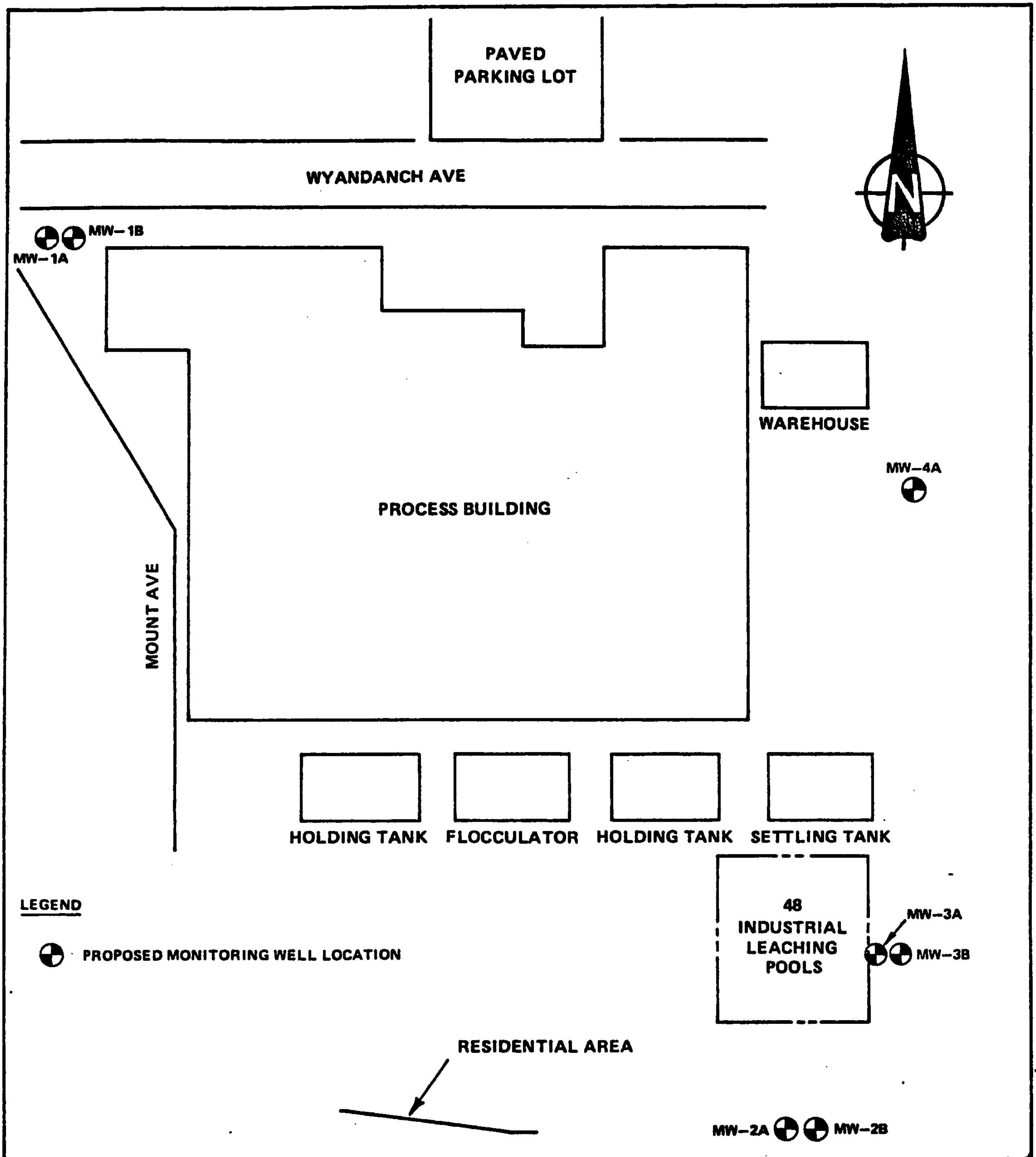
6.2.3 Monitoring Wells

6.2.3.1 Installation. Monitoring wells will be installed to provide data pertinent to both water chemistry and the stratigraphy and ground-water regime at the site. It is recommended that seven monitoring wells (3 nested pairs and one single well) be installed at the approximate locations shown in Figure 2. Finalized well locations will be determined after the geophysical data have been plotted and analyzed.

One nested pair of wells (MW-1A-1B) will be installed at a presumed upgradient location, near Wyandanch Avenue on the north western edge of the property. These wells will provide background information on the ground water flowing into the site area. Two additional pairs of nested wells and one additional single shallow well will be required to monitor downgradient flow directions and water quality. Wells MW-2A-2B, MW-3A-3B, and MW-4A will be installed at the approximate locations shown in Figure 2. The conductivity data will be analyzed prior to finalizing locations for downgradient wells so that these wells will be optimally placed to determine whether contamination exists from waste disposal on site. To reduce additional drilling costs, a residential well will be selected for sampling to determine downgradient water quality off site.

Shallow monitoring wells will be installed so as to sample the upper 10 feet of ground water. The ground-water table in the glacial deposits is less than 10 feet. Therefore, the anticipated depth of the shallow wells is estimated at 20 feet. The deep wells are anticipated to reach 110 feet. Clay is expected to be encountered at 100 feet. The reason for installing deep wells to the top of the clay layer is because some of the contaminants expected to exist at the site are heavier than water and may tend to sink through the water table and accumulate on top of a confining layer.

The wells should be installed in two phases. Initially, the shallow wells should be installed and sampled. If contaminants attributable to the site are detected in the shallow wells, there would be no need to look deeper as an observed release from the site will have been established. If, however, the shallow wells are clean, the deeper wells would be needed to confirm that the site is in fact not a source of ground water contamination.



Prepared for
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233
Henry G. Williams, Commissioner

Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E.
Director

Approved

LOCATION PLAN
FOR PROPOSED PHASE II INVESTIGATION
JAMECO INDUSTRIES, INC.

Prepared by
WOODWARD—CLYDE CONSULTANTS, INC.
CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
NEW YORK, NEW YORK

DR BY TJD	SCALE NONE	PROJ NO 82C4548-3
CK'D BY: LEW	DATE: 25 FEB 1986	FIG NO 2

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Borings will be advanced through the overburden by 4-inch I.D. hollow-stem augers or driven casing, with continuous split-spoon sampling to 15 feet then at 5-foot intervals thereafter. Blow counts will be recorded during each sampling. A portable HNU meter, Model PI 101 will be used during drilling to determine whether any volatilization of organic compounds is occuring. Soil samples will be classified in the field by a hydrogeologist using the Unified Soil Classification System. Selected samples will be sent to our geotechnical laboratory for grain-size analysis, soil-moisture determinations, and possibly Atterberg tests . It is estimated that two samples from every newly installed well will be collected and analyzed for each of these tests. To maximize information on any volatile organic contaminants that may be present headspace surveys will be conducted on soil samples using a portable HNU meter. These data will be used to evaluate relative concentrations of organic contaminants in various stratigraphic horizons.

Slotted 2-inch I.D. PVC well screen will be installed over 10-foot intervals in well, with a riser casing of flush joint, threaded, 2-inch I.D. PVC pipe. Due to relatively high permeabilities expected, 4-inch wells may be needed to obtain reliable data from the permeability tests. This option should be considered in preparing the final work plan. In low-lying areas, risers will extend at least 3 feet above the ground surface to prevent contamination by surface-water flooding. A gravel pack will be completed to approximately 2 feet above the top of the screen, where a 1-foot bentonite seal will be emplaced. To further assure that water samples will be representative of the screened interval, the remaining annular space will be grouted, and a protective steel casing will be installed. After installation, wells will be developed by pumping to remove any fine-grained material.

It is estimated that 20 days will be required for drilling, installation and development of the seven wells, performing the organic-vapor survey, surveying newly-installed well elevations and data reduction.

6.2.3.2 Water-Level Elevations. Ground-water depths will be measured at the time of well installation and well development and again at the time of sampling. Relative well elevations will be surveyed and water-level elevations will be plotted and used to develop contours of the ground-water table at the site. Based on this map, the direction(s) of ground-water flow will be determined.

Well elevations will be measured relative to an arbitrary datum established at the site. It is estimated that one day will be required by a two-person crew to perform a leveling survey at the site. This time is included in the time estimates given in section 6.2.3.1.

Flow and gradient data will represent fundamental input in quantifying site conditions and will be assessed together with any plume geometries inferred from geophysical survey data.

6.2.3.3 Aquifer Testing. "Slug"-type permeability tests will be conducted in each newly installed well to evaluate the permeability of materials spanning the screened interval. The method is a rapid means by which the in-situ permeability in the immediate vicinity of a monitoring well can be approximated. The test does not involve pumping of potentially contaminated water, and the results generally suffice for ground-water flow analysis.

6.2.4 Sampling and Analysis Plan

6.2.4.1 General Plan. The site-specific Quality Assurance/Quality Control (QA/QC) Plan will be developed by WCCI and approved by the NYSDEC prior to commencement of work.

6.2.4.2 Sampling Parameters. The laboratory analysis will focus on chemical screening techniques to determine the type of contamination, range of concentration, and the migration of contaminants if present, in soil and ground water. Suspected contaminants include priority pollutant volatile organics, metals,

Table 2. PROPOSED CHEMICAL ANALYSES AT THE JAMECO INDUSTRIES, INC. SITE

	ANALYSES				
Sample Type	Priority Pollutant +40	Priority Pollutant Volatile Organics	Priority Pollutant Metals	Cyanide	Remarks
Ground Water	X				One sample at each of six (nested) wells.
		X	X	X	One sample from shallow monitoring well and one sample from private down-gradient well.
Soil	X				One sample from unsaturated zone at each of six nested wells.
		X	X	X	One sample from single shallow monitoring well.
Air	X				Upwind and downwind locations using HNU or OVA.

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and cyanide. However, other contaminants may be present at the site. Therefore, we recommend a full priority pollutant analysis plus 40 be conducted on all samples collected from nested wells. Samples collected from the single shallow well and the off-site domestic well will be analyzed for priority pollutant volatile organics and metals. Samples will be collected from ground water and soils at the site. Sample types and chemical parameters to be analyzed for are summarized in Table 2. It is advisable that surface water and sediments be sampled downgradient of the site. The surface water bodies less than 0.5 mile from the site are discharge points for ground water flow. For the purpose of this investigation, surface and water sediment sampling and analysis is not included.

6.2.4.3 Sampling Locations. One water sample and one soil sample from each of the seven monitoring wells will be analyzed. If obviously contaminated surface soil is encountered in other areas of the site, additional soil sampling should be considered. In addition, one water sample from a nearby domestic downgradient well will be sampled and analyzed. Results of each pair of analyses will be compared to evaluate any downward migration of contaminants through soil. Ground-water analyses will be evaluated in terms of other hydrogeologic data to evaluate the presence, distribution, and migration directions of any ground-water contamination plumes.

It is estimated that 8 person-days will be required to perform slug tests on all the wells, plot data and collect are necessary samples for laboratory analysis and testing. This estimated time includes a two-person crew at the site, as required for potentially hazardous waste sites.

A preliminary air quality survey will be conducted at upwind and downwind locations using the HNU or OVA, and will allow for determination of whether or not organics are being released from the site.

6.3 HEALTH AND SAFETY PLAN

Health and safety apparel and equipment are expected to be required during the major field activities -- initial site investigation, geophysical studies, drilling and monitoring-well installation and water sampling. For the purpose of costing the investigation, Level D protection is assumed in each case. The health and safety precautions and procedures actually employed will conform to the generalized NYSDEC Health and Safety Plan, and will be developed by WCCI on a site-specific basis. Should protective levels higher than Level D be required for any activity, the costs for the activities would require adjustment.

6.4 REPORT PREPARATION

Report Preparation will involve analysis of the data as well as preparation of the text. Included in this task are the compilation and organization of the data, editing of boring logs, preparation of graphical representations, analysis and calculations, updating the HRS score for the site and report reproduction. If necessary, remedial concepts will be developed along with order-of-magnitude remedial costs.

6.5 COST ESTIMATE

Costs for Phase II work were developed based on NYSDEC Audit and Control Guidelines, using assumptions described in WCCI's cost proposal submitted to the NYSDEC on October 29, 1982, subsequent contract D000452 dated March 31, 1983, and the generic work plan developed by the NYSDEC. Costs have been grouped by task, and estimates are presented in Table 3. Lump sum cost arrangements will be provided for Tasks 1, 2, 3, 6 and 7. For Tasks 4 and 5, Drilling/Well Installation and Sampling and Analysis respectively, lump sum cost arrangements will be provided with the exception of drilling and well installation subcontracted costs, and chemical analytical laboratory subcontracted costs. Analytical costs include trip and field blanks spike and replicate and shuttle cost's as required by the NYSDEC QA/QC laboratory protocol. The subcontracted cost items will be billed at cost plus five percent. Any activity that involves work or levels of effort beyond the scope of this work plan will be billed in accordance with the Woodward-Clyde Consultants, Inc. rates prevailing at the time work is conducted.

TABLE 3

ESTIMATED COSTS FOR PHASE II INVESTIGATION
JAMECO INDUSTRIES, INC.

TASKS	LABOR				OTHER DIRECT COSTS								TOTAL
	Hours	Direct Cost	Overhead Cost	Total Cost	Consul-tants	Sub-Con-tractors	Travel & Subsis-tence	Health & Safety Gear & App (1)	Special Testing	Special Equip-ment	Sample Shipment	Office Services (2)	
1. Work, Health & Safety and QA/QC Plans	75	1385	1593	2978			0	0		0		200	3178
2. Preliminary Investigations and Site Visit	22	404	465	869			78	140		275		0	1363
3. Geophysical Studies	64	1179	1356	2535			288	280		750		0	3854
4. Drilling/Well Installation	180	3330	3830	7160		15780	1544	1190	2095	3170	250	0	31188
5. Sampling and Analysis	72	1332	1532	2864		67095	648	560		1390	650	0	73207
6. Report Preparation	156	2961	3406	6367	1500		0	0		0		1467	9334
7. Project Management	82	2049	2357	4406			458	0		0		400	5265
TOTALS	651	12642	14538	27179	1500	82875	3017	2170	2095	5585	900	2067	127389
FEE				4077	75	4144							8296
TOTAL ESTIMATED COST				31256	1575	87019	3017	2170	2095	5585	900	2067	135684

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Appendix A

2

ORIGINAL—TO COMMISSION

County Suffolk

WSN 4710

State of New York
Department of Conservation
Division of Water Resources

Well No. S-25674 (on preliminary report)

LOG
Ground Surf., El. 50 ft. above sea

ft.

Top of Well

COMPLETION REPORT—LONG ISLAND WELL

Owner Suffolk County Water Authority

Address Oakdale

Location of well Wyandanch 100 E/O AP ST. 200' N/O WYANDANCH AVE

Dept of well below surface 625' - 1½ feet

Depth to ground water from surface 13' feet

CASINGS:

Diameter 16" in. 12" in. in. in.

Length 0-249'-8" ft. 250'-10"-555' ft. ft. ft.

Sealing

Casings removed

SCREENS: Make Johnson Everdur Openings # 70 Slot

Diameter 12" in. in. in. in.

Length 75' ft. ft. ft. ft.

Depth to top from top of casing 550' - 7/8" ft.

Screened 550-625

PUMPING TEST: Date 10/25/65 Test or permanent pump? Test

Duration of Test Three (3) days hours

Maximum Discharge 1515' gallons per minute

Static level prior to test 12' ft. 8" in. below top of casing

Level during Max. Pumping 49' ft. 8" in. below top of casing

Maximum Drawdown 37' ft.

Approx. time of return to normal level after cessation of pumping hours minutes

STATE OF NEW YORK
WATER RESOURCES
MAY 23 1966
COMMISSION
RECEIVED

Information from Owner 5/19/66

PUMP INSTALLED:

Type DWT Make Layne Bowler Model No. 12 WGC

Motive power Elec Make US H.P. 100

Capacity 1200 g.p.m. against 174.9 ft. of discharge head

No. bowls or stages 4 233 ft. of total head

DROP LINE:

Diameter 10 in.

Length 80 ft.

SUCTION LINE:

Diameter 10 in.

Length 9'5" ft.

Use of water Public Supply

Work started 9/7/65 Completed 9/27/65

Date May 20, 1966 Driller C. W. Lauman & Co., Inc.

License No. 13

NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

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INTER OFFICE MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL CONTROL

Date: Nov. 27, 1973

To FOR THE RECORD

From James Pim

Subject Jameco Industries Corp.
Wyandanch Ave., Wyandanch, N.Y.

Mr. Watt and I inspected the above facility today accompanied by Mr. ~~Isidore Lipman~~ Jesse Glickman. We toured the entire plant and the plating and treatment facilities.

I noticed the following items:

1. There is no treatment at all following nickel plating.
2. Except for 2 static drag-out rinse tanks used in the automatic plating line there is apparently no conscience effort to minimize water usage. Running rinses are left on continuously even when operations are not in use.
3. All floor spill waste goes to the floor spill waste treatment tank, is treated and then discharged to the sludge bed. Every 2 or 3 months when the cyanide and chrome treatment tanks are cleaned, the sludge in the tanks is suspended and pumped into the floor spill treatment tank and then directly out to the sludge pit.
4. There are 2 sludge pits, perhaps 30' in diameter claimed to be about 7' deep. One is filled to the top with dried sludge. The other is filled to the top with liquid.
5. All rinses flow through a concrete settling tank where caustic is added if necessary for pH adjustment. They flow to a second concrete settling tank and then into 13 leaching pools. The leaching pool area is completely flooded indicating that all of the pools are plugged. It was claimed that the pools are pumped on a regular basis and sludge is removed. Sludge is also removed from the 2 settling tanks but it wasn't known where the sludge was taken.

6. There is a great deal of cutting oil used in the plant and quite a bit of oil is on the ground behind the plant. The engineering reports should cover clearly what the handling procedure is for waste oil.

7. There is a soldering operation followed by a quench water, which no doubt contains lead and perhaps fluorides or some other material from the flux. The quench water is pumped through a pipe away from the solder location but I did not determine to where it is pumped.

8. All tanks are heated by steam coils inside the tanks so the boiler blow-down should be checked for contamination.

9. Large multimedia filters are used for filtering the copper, nickel and chrome plating tanks. These are periodically cleaned by removing the filtering material and replacing it with new filtering material. The old filtering material is drummed and apparently removed to the local landfill site. This should no longer be permitted as the filter media is, no doubt, highly contaminated with concentrated plating solution.

10. The final pH chart recorder was not in operation.

11. The plant should be checked carefully for cross connections.

12. Removal of sludge from treatment tanks is manual on a very infrequent basis. Frequent removal would probably greatly improve the efficiency of the operation and minimize drag-out.

13. Quench water from the annealing furnaces should be treated with copper waste.

14. Samples should be taken out of the second concrete settling tank and from the sludge holding pit, which is in use. Sludge samples should be analyzed both before and after filtration. Sample analyses should be for at least the following:

    lead, nickel, copper, hexavalent chrome, trivalent chrome, zinc, iron, pH, fluoride, detergent, total dissolved solids, suspended solids, turbidity, sulphates, nitrates.

JP

James Pim
P/rt

Pumpage from Suffolk County's aquifers increased from about 40 mgd in 1950 to about 155 mgd in 1970, to supply a population that has been increasing rapidly since the end of World War II. The greatest increases in population and ground-water pumpage have been in the western part of the county. Before about 1960, wells tapping the upper glacial aquifer supplied nearly all the water used in Suffolk County. Since then, pumpage from the Magothy aquifer has increased, and in 1970, the wells tapping the Magothy aquifer supplied about one-third the water used. (See map showing areal distribution of major pumpage by aquifer 1970.)

CHANGES OF GROUND WATER IN STORAGE

An area of about 140 square miles in west-central Suffolk County is underlain by about 4.5 trillion gallons of fresh water (Soren, 1971a, p. 20). By extrapolation, the total fresh ground water beneath all the county is probably 4 to 5 times this volume.

Withdrawals of ground water have caused the water table in some parts of the county to decline as much as 25 feet from earliest known levels in 1903 (map showing net change in the position of the water table) and have probably caused a small regional but generally undetected landward advance of salty ground water. The decline of the water table reflects a loss of 60 to 80 billion gallons of fresh water from the ground-water reservoir between 1903 and 1971. However, this loss of ground water from storage is less than 1 percent of the total ground water in storage in Suffolk County.

SELECTED REFERENCES

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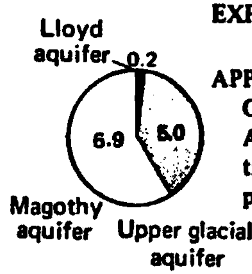
Cohen, Philip, Franke, O.L., and McClymonds, N.E., 1969, Hydrologic effects of the 1962–66 drought on Long Island, New York: U.S. Geol. Survey Water-Supply Paper 1879-F, 18 p.

Cohen, Philip, Vaupel, D.E., and McClymonds, N.E., 1971, Detergents in the streamflow of Suffolk County, Long Island, New York, *in* Geological Survey Research, 1971: U.S. Geol. Survey Prof. Paper 750-C, p. C210–C214.

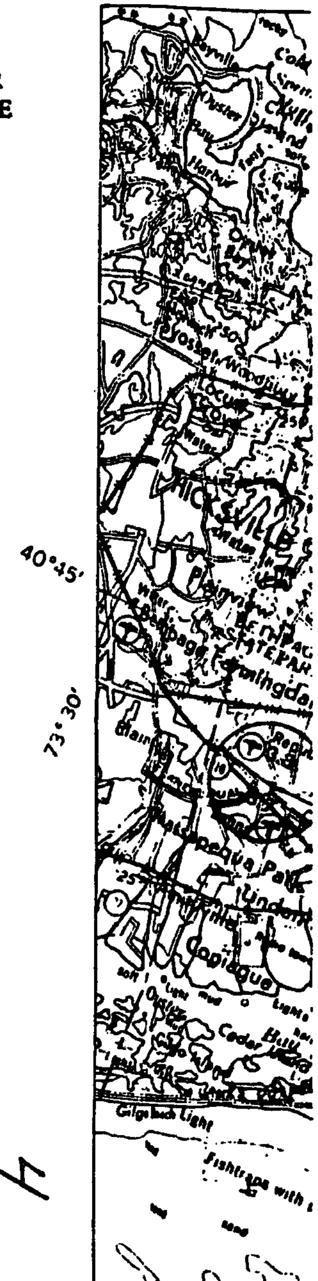
Collins, M.A., Gelhar, L.W., 1970, Ground-water hydrology of the Long Island aquifer system: Mass. Inst. Technology Hydrodynamics Lab. Rept. no. 122, 185 p.



EXPLANATION

APPROXIMATE AREAL CENTER OF MAJOR GROUND-WATER PUMPING AND SOURCE AQUIFERS — Diameter of circle is proportional to pumpage; number is average daily pumpage, in million gallons per day

Jensen and Soren, 1974



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MAP SHOWING POTENTIOMETRIC SURFACE OF WA

Map Showing Areal Distribution of Major Pumpage by Aquifer, 1970 (Jensen and Soren, 1974).

industrial cooling is returned, with higher temperatures, through recharge wells to the ground-water reservoir. Ground water pumped for crop irrigation and lawn sprinkling mostly represents a net loss from the system by evapotranspiration. Artificial filling of marshy shore areas has probably reduced evapotranspiration.

In 1970, gross ground-water pumpage in Suffolk County was 155 mgd (New York State Department of Environmental Conservation, written commun., June 1, 1971). An unknown amount of the pumpage was consumed by evapotranspiration, and virtually all the remainder (probably more than 75 percent) was returned to the ground through local waste-disposal facilities.

MOVEMENT OF GROUND WATER

Ground water moves from three major drainage subareas toward discharge at or near the shore. These subareas are (1) the main land area of the county from the Nassau County boundary to a point near the Brookhaven National Laboratory, (2) the north fork, from the Brookhaven National Laboratory to Orient Point, and (3) the south fork, from the Brookhaven National Laboratory to Montauk Point. The ground-water divides of these subareas form a "Y"-shaped pattern that approximately coincides with the major surface-water drainage divides. The arms of the Y radiate from the general area of the Brookhaven National Laboratory through the centers of the north and the south forks. Ground water moves northward toward Long Island Sound and southward toward Great South Bay and the ocean; lesser amounts in the Brookhaven National Laboratory and Riverhead areas percolate eastward toward Peconic Bay. Ground-water drainage from the north-fork area moves northward to Long Island Sound and southward into Peconic and Gardiners Bays and Block Island Sound; in the southfork area, ground water moves northward to Peconic and Gardiners Bays and Block Island Sound and southward into Moriches and Shinnecock Bays and the ocean.

Movement of water in the aquifers of Suffolk County is more rapid horizontally than vertically. This partly reflects the low vertical hydraulic conductivity of the near-horizontal interbedded clay and silt lenses and beds. The estimated average rates of horizontal movement in the upper glacial, the Magothy, and the Lloyd aquifers are 0.5, 0.2, and 0.1 foot per day, respectively, in areas remote from pumping wells, and hundreds of feet per day near the screens of pumping wells (Soren, 1971a, p. 16). Vertical rates of movement are described in the following section.

HYDRAULIC INTERCONNECTION OF AQUIFERS

The aquifers of Long Island are hydraulically interconnected. Layers of clay and silt within an aquifer, or clayey and silty units between aquifers, confine the ground water; but these units do not completely prevent the vertical movement of water through them.

On the average, the vertical hydraulic conductivity of and rates of vertical flow through the upper glacial aquifer are greater than those of all other hydrogeologic units in Suffolk County. The vertical movement of water through the Magothy aquifer is impeded by intercalated lenses and beds of clay and silt; but, locally, vertical movement through the aquifer is facilitated by the lateral discontinuity of clay and silt beds. Vertical movement of water through clay and silt beds of the Magothy aquifer is very slow. The Raritan clay effectively confines water in the underlying Lloyd aquifer because the Raritan clay is thick, is areally persistent, and is of very low hydraulic conductivity. Movement through the bedrock is negligible.

The contact between the upper glacial and the Magothy aquifers is not a smooth plane. Glacial deposits fill buried valleys that were cut in the Magothy aquifer, and these deposits are in lateral contact with truncated beds in the Magothy aquifer. In the buried valleys, water enters the Magothy aquifer at depths of hundreds of feet directly from the upper glacial aquifer. Near Huntington, a buried valley cuts completely through the Magothy aquifer and extends into the Raritan clay; in the Ronkonkoma basin, the Magothy aquifer seems to be nearly completely cut through; and along the north shore, where locally all the pre-Pleistocene deposits were completely eroded, the upper glacial aquifer is in contact with the full thickness of the Magothy aquifer. (See map showing altitude of top of

Jensen and Soren, 1974.

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p. 144–150), and Soren (1971b, p. A31–A34).

DETERGENT CONSTITUENTS (MBAS)

More than 95 percent of the ground water used for domestic supply in Suffolk County is returned to the ground through cesspools, septic tanks, and similar structures. As a result, the ground water and the ground-water-fed streams locally contain measurable amounts of certain substances of sewage origin, including foaming agents derived from synthetic detergents, commonly referred to as MBAS or methylene blue active substance. MBAS has been noted mainly in water from the upper glacial aquifer (Perlmutter and Guerrera, 1970, p. B14) and in the streams (Cohen, Vaupel, and McClymonds, 1971). Apparently, little or no MBAS had been found in water in the Magothy and the Lloyd aquifers. Where MBAS has been found in the water, the content is commonly less than 0.5 mg/l, the maximum limit in public-supply water recommended by the U.S. Public Health Service (1962, p. 24). However, locally, as much as 5 mg/l has been found in the ground water; and in some areas the MBAS content of the water seems to be increasing. As a result, the Suffolk County Legislature recently (1971) passed a law banning the sale of certain detergents in the county. In addition, plans have been developed for the construction of widespread sanitary-sewer systems that will discharge treated waste water into the sea.

NITRATE

The amount of nitrate in the ground water of Suffolk County is of concern of water managers and health officials. According to the U.S. Public Health Service (1962, p. 7) more than 45 mg/l nitrate (10 mg/l NO_3-N) in water supplies may be harmful, especially to infants. Perlmutter and Koch (1972, p. B230) estimated that the average natural background level of nitrate in ground water of Nassau and Suffolk Counties was less than 1 mg/l (less than 0.2 mg/l NO_3-N).

Numerous wells in Kings County (G.E. Kimmel, written commun., August 1971), Queens County (Soren, 1971b, p. A30–A31), Nassau County (Perlmutter and Koch, 1972), and Suffolk County (Harr, 1971) yield water containing more than 0.2 mg/l NO_3-N. Moreover, at least 50 wells on Long Island yield water containing more than 10 mg/l NO_3-N.

The amount of water having more than 0.2 mg/l NO_3-N, its rate of increase, and the depth at which it is found seem to increase westward on Long Island as a whole, as well as in Suffolk County. These relations probably largely reflect the westward increase in population density, the westward increase in the age of the communities, and the associated degree of contamination of the ground water related to man's activities.

In Suffolk County, the two major sources of nitrate nitrogen in the ground water are (1) disposal of waste water into the ground and (2) agricultural activities, especially those involving the use of fertilizers. A planned countywide sanitary-sewer system is intended to reduce sewage as a source of nitrate nitrogen in the ground water of Suffolk County.

GROUND-WATER PUMPAGE

Pumpage from Suffolk County's aquifers increased from about 40 mgd in 1950 to about 155 mgd in 1970, to supply a population that has been increasing rapidly since the end of World War II. The greatest increases in population and ground-water pumpage have been in the western part of the county. Before about 1960, wells tapping the upper glacial aquifer supplied nearly all the water used in Suffolk County. Since then, pumpage from the Magothy aquifer has increased and in 1970, the wells tapping the Magothy aquifer supplied about one-third the water used. (See map showing areal distribution of major pumpage by aquifer 1970.)

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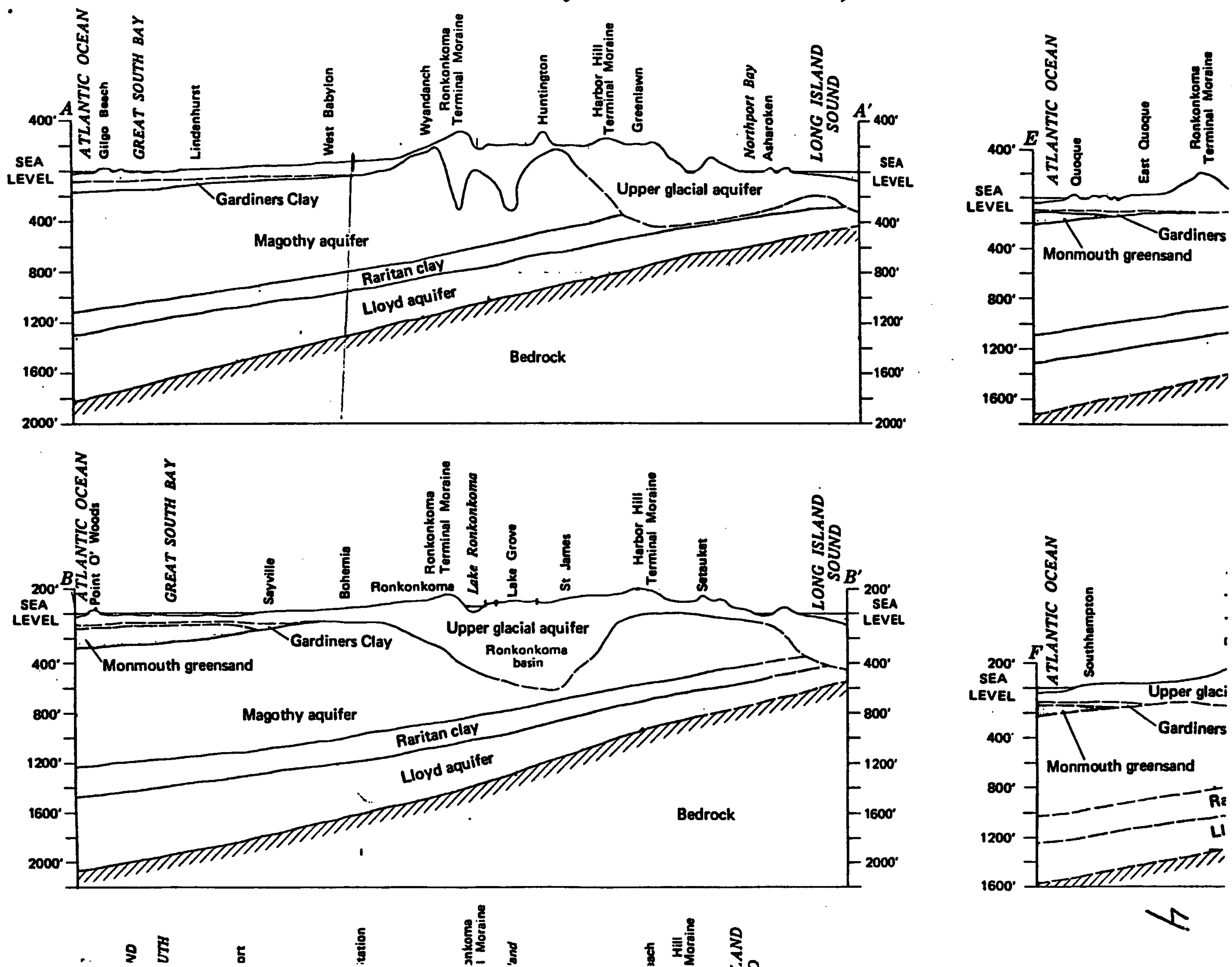
Withdrawals of ground water have caused the water table in some parts of the county to decline as much as 25 feet
... 1972 (map showing net chang

Hydrogeologic Sections, Jensen and Soren, 1974.



Source: USDA, 1975 5

These differences do not seriously alter their usefulness and behavior.

Raynham soils are associated with Scio and Walpole soils. They are similar to Scio soils in texture, but they have a higher seasonal water table and are more poorly drained, as is indicated by the grayer color in the solum. Also, Raynham soils lack the till substratum of some of the Scio soils, and they are thicker over sand and gravel than the sandy substratum phase of Scio soils. The B horizon of Raynham soils contains more silt and very fine sand than that of Walpole soils. Although Raynham soils are not associated with Wallington soils, the two are similar, but Raynham soils lack the fragipan and the compact till substratum of Wallington soils.

Raynham loam (Rc).—This is the only Raynham soil mapped in the county. This nearly level soil is in low-lying areas beside marshes and creeks. In many places it forms a transition between poorly drained areas and better drained areas on uplands. It is on outwash plains and moraines. Areas generally are small and irregular.

Included with this soil in mapping are wet spots of Berryland soils and a very poorly drained silt loam soil. Also included are soils that have a water table at a similar depth as Raynham soils, but they lack the gray color of Raynham soils, have a slightly coarser subsoil, and have sand and gravel below a depth of 30 inches.

The hazard of erosion is slight on this Raynham soil. If this soil is used for farming, artificial drainage is needed.

This soil is not well suited to crops commonly grown in the county unless it is artificially drained. Because of its position on the landscape, it is difficult to locate adequate drainage outlets. Near Southhampton, small areas of this soil were formerly cleared and used for crops, but most of these areas are idle and are in brush. Most of the other areas of this soil are wooded. This soil is better suited to woodland and to recreational areas than to other uses. In places, areas of this soil have been filled and used as homesites. As demand for building lots increases, more areas will be filled for use as building sites. Capability unit IIIw-1; woodland suitability group 4w1.

Recharge Basin

Recharge basin (Rc) is made up of basins that vary in size or of dugouts that have been dug into a porous sand and gravel substratum. These basins provide for the disposal of surface water by acting as catchments and by allowing the water to infiltrate the sand and gravel and recharge the ground water supply. Recharge basins are used to catch runoff from areas such as highways (fig. 13), housing developments, or parking lots.

Small basins less than 2 acres in size are indicated on the detailed map by a spot symbol, and basins larger than 2 acres are delineated and identified by the symbol Rc. Capability unit not assigned; woodland suitability group not assigned.

Riverhead Series

The Riverhead series consists of deep, well-drained, moderately coarse textured soils that formed in a mantle of sandy loam or fine sandy loam over thick layers of coarse sand and gravel. These soils occur throughout the county in rolling to steep areas on moraines and in level to gently sloping areas on outwash plains. These soils range from nearly level to steep; however, they generally are nearly level to gently sloping. Native vegetation consists of black oak, white oak, red oak, and scrub oak.

In a representative profile the surface layer is brown to dark brown sandy loam about 12 inches thick. The upper part of the subsoil, to a depth of about 27 inches, is strong-brown, friable sandy loam. The lower part of the subsoil is yellowish-brown, very friable loamy sand to a depth of about 32 inches. Below is yellowish-brown, friable gravelly loamy sand to a depth of about 35 inches. The substratum is very pale brown and brown loose sand and gravel or sand to a depth of 65 inches.

Riverhead soils have moderate to high available moisture capacity. Internal drainage is good. Permeability is moderately rapid in the surface layer and in the subsoil and very rapid in the substratum. Natural fertility is low. Reaction is strongly acid to very strongly acid throughout. The response of crops to lime and fertilizer is good. The root zone is mainly in the upper 25 to 35 inches. In many places where these soils have been farmed, a plowpan is in the lower part of the surface layer and in the upper part of the subsoil.

Representative profile of Riverhead sandy loam, 0 to 3 percent slopes, 0.9 mile south of State Route 25, 0.3 mile north of junction of County Road 21 and Longwood Road in Brookhaven, "Camp Wilderness, Boy Scouts of America":

Ap—0 to 12 inches, brown to dark-brown (10YR 4/3) sandy loam; weak, fine, granular structure; friable; many fine roots in upper part; moderate to strong, platy, firm plowpan in lower 4 inches; strongly acid; abrupt, smooth boundary.

B2—12 to 27 inches, strong-brown (7.5YR 5/6) sandy loam; very weak, medium, subangular blocky structure that parts to weak, fine granular; friable; a few fine roots; many fine pores; less than 5 percent gravel; strongly acid; clear, wavy boundary.

B31—27 to 32 inches, yellowish-brown (10YR 5/4) loamy sand; very weak, fine, granular structure; very friable; a few fine roots; 10 percent gravel; strongly acid; abrupt, smooth boundary.

IIB32—32 to 35 inches, yellowish-brown (10YR 5/4) gravelly loamy sand; massive; friable; a few fine roots; 30 percent gravel; strongly acid; abrupt, smooth boundary.

IIIC1—35 to 40 inches, brown to dark-brown (7.5YR 4/4) sand; single grain; loose; 10 percent fine gravel; strongly acid; abrupt, smooth boundary.

IIIC2—40 to 65 inches, very pale brown (10YR 7/4) coarse and medium sand that contains 2-inch layers of gravel, 8 to 24 inches apart; single grain; loose; strongly acid.

The solum ranges from 22 to 36 inches in thickness. It corresponds in depth to the upper boundary of the underlying coarse sand and gravel. The content of gravel or stones ranges from 2 to 15 percent, by volume, in the upper part of the solum and from 5 to 35 percent in the substratum. The content of gravel in the solum is higher in soils that have a thin solum. In places the solum is more than 30 inches thick, and streaks and pockets of olive-gray colors are present immediately above the sand or sand and gravel substratum. Reaction ranges from strongly acid to very strongly acid throughout.

In places these soils have an Ap horizon that ranges from very dark grayish brown (10YR 3/2) to brown or dark brown (10YR 4/3). The A1 horizon ranges from black (10YR 2/1) to dark grayish brown (10YR 4/2).

The B horizon ranges from brown or dark brown (7.5YR 4/4) to light olive brown (2.5Y 5/6). Texture is dominantly sandy loam, but it ranges to fine sandy loam. Structure is massive, or very weak subangular blocky. Consistence ranges from friable to very friable.

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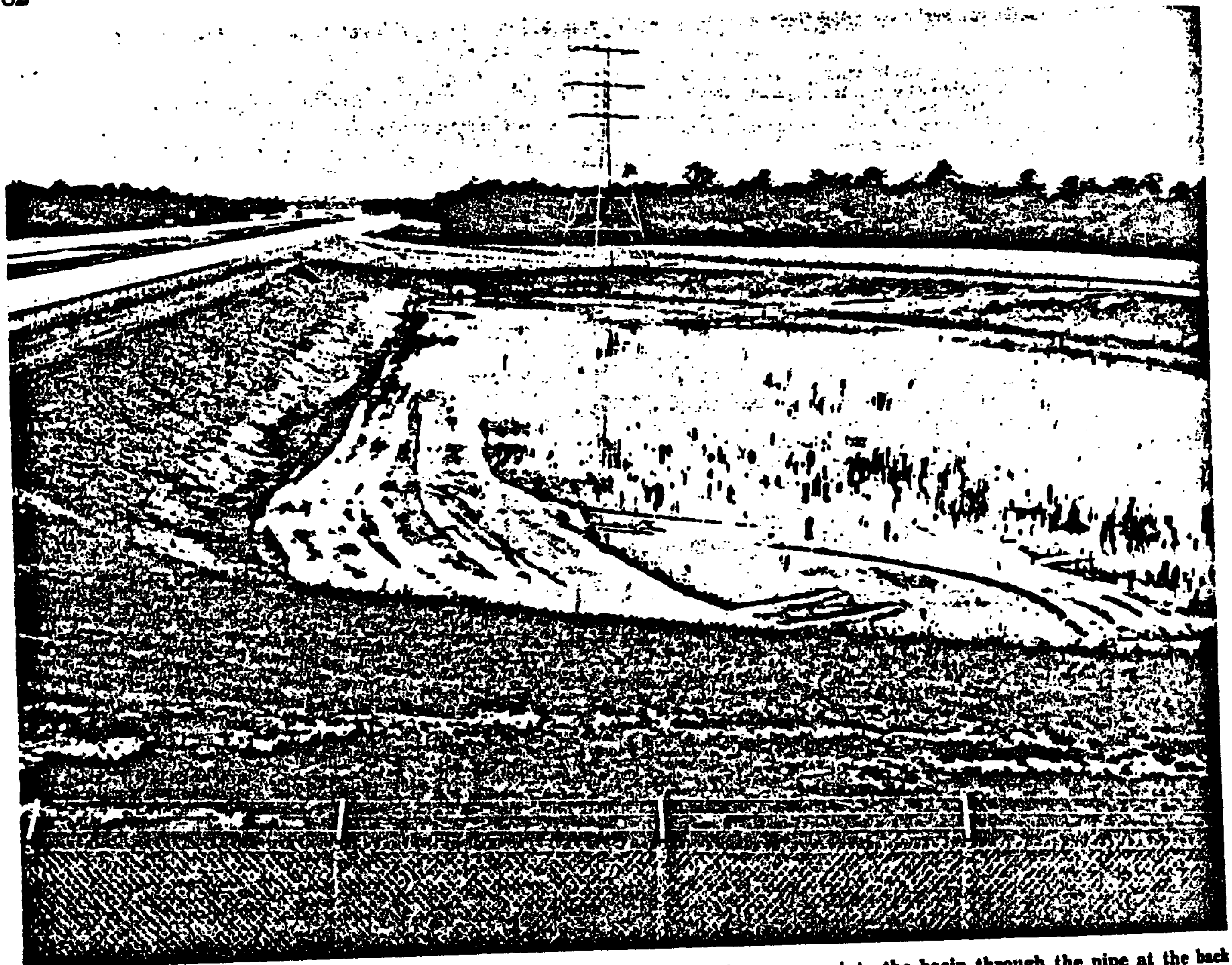

Figure 13.—Recharge basin that catches runoff from adjoining highway. Water comes into the basin through the pipe at the back corner.

Many Riverhead soils have a thin loamy sand horizon in the lower part of the B horizon. This horizon has the same color range as the upper part of the B horizon, and it is as much as 35 percent coarse fragments.

The C horizon ranges from brown or dark brown (7.5YR 4/4) to yellow (2.5Y 7/6). Texture is sand or sand and gravel, and it is generally stratified.

Riverhead soils are near Haven, Plymouth, Sudbury, and Walpole soils. Riverhead soils are sandier throughout the solum than Haven soils, and they are less sandy throughout the solum than Plymouth soils. Sudbury soils are moderately well drained, and Walpole soils are somewhat poorly drained or poorly drained.

Riverhead sandy loam, 0 to 3 percent slopes (RdA).—This soil has the profile described as representative of the series. It generally is on outwash plains, and the areas are large and uniform. Where this soil occurs on outwash plains, it generally has slope characteristics of this landform. Slopes are undulating in places. A few small, irregular areas are on moraines.

Included with this soil in mapping are small areas of Sudbury soils that are less than 1 to 2 acres in size. Also included are areas of soils near Bridgehampton that have a profile similar to that of this soil, except that at a depth of about 30 inches they have layers of gray and strong-brown silt loam 1 to 2 feet thick. Also included are areas of Haven and Plymouth soils that have a texture marginal to sandy loam and areas of soils that have a loam or fine sandy loam surface layer and a sandy loam subsoil. Areas of Montauk soils on moraines that have a very weak fragipan formed in loose sandy till are included.

The hazard of erosion is slight on this Riverhead soil. This soil is limited only by moderate droughtiness in the moderately coarse textured solum. It tends to develop a plowpan if it is intensively farmed.

This soil is well suited to all crops commonly grown in the county, and it is used extensively for that purpose. Most areas in the western part of the county, however are used for housing developments and industrial parks. Capability unit IIs-1; woodland suitability group 3o1.

Riverhead sandy loam, 3 to 8 percent slopes (RdB).—This soil is on moraines and outwash plains. It generally is in areas along shallow, intermittent drainageways. Slopes generally are moderately short, but large areas on moraines are undulating.

The profile of this soil is similar to the one described as representative of the series, though in cultivated areas this soil is likely to be 2 to 3 inches shallower to coarse sand and gravel, and the surface layer is likely to contain a slightly larger amount of gravel.

Included with this soil in mapping are small areas of Bridgehampton, Haven, and Plymouth soils in a complex pattern. The texture of these soils is marginal to sandy loam. These included soils generally are on large separations. Near Bridgehampton are included areas of Riverhead soils that have gray and strong-brown silt loam layers at a depth of 26 to 30 inches. Also included are narrow strips of Haven loam, thick surface layer, along intermittent drainageways, and soils that have a surface layer of loam or fine sandy loam and a subsoil of sandy loam. Included with this soil on moraines are Montauk soils that have a very weak fragipan that formed in loose, sandy till.

The hazard of erosion is moderate to slight on this Riverhead soil. The main concerns of management are controlling runoff and erosion and providing adequate moisture.

This soil is well suited to all crops commonly grown in the county, and it is used mainly for this purpose. Most areas in the western part of the county, however, are used for housing developments and as industrial sites. Capability unit IIe-2; woodland suitability group 3o1.

Riverhead sandy loam, 8 to 15 percent slopes (RdC).—This soil is in narrow bands on outwash plains along the side slopes of deep, intermittent drainageways. Slopes are short. On the Harbor Hill moraine and on the Ronkonkoma moraine east of the Shinnecock Canal, the areas of this soil are larger than in other places in the county and they generally are rolling.

The profile of this soil is similar to the one described as representative of the Riverhead series, but in cultivated areas this soil generally is 3 to 4 inches shallower to coarse sand and gravel, and it is as much as 15 percent gravel, by volume.

Included with this soil in mapping are eroded and gravelly areas too small to map separately. Also included in a complex pattern with this Riverhead soil are Haven and Plymouth soils that have a texture marginal to sandy loam. These soils generally are in large separations on moraines. Along the bottom of intermittent drainageways, strips of Haven loam, thick surface layer, that are too narrow to map separately are also included. Other inclusions are Montauk soils that have a very weak fragipan that formed in loose sandy till and some areas that have a sand and gravel substratum, 1 to 2 feet thick, underlain by till at a depth of more than 42 inches.

The hazard of erosion is moderately severe on this Riverhead soil. Controlling erosion is the main concern of management. This soil is limited by droughtiness and by the difficulty of applying irrigation water. The response of crops to applications of lime and fertilizer is good. Slope limits the use of large farm machines.

This soil is suited to crops commonly grown in the county; however, the hazard of erosion reduces its usefulness for farming. Most areas of this soil are in trees or brush. A few small tracts were formerly cleared and farmed along with adjoining less sloping soils, but many of these areas are now in grass or brush because the use of heavy farm equipment on these areas is impracticable. Many of the larger areas of this soil are used for housing developments where large lots are needed. These rolling areas are in the western part of the county. Capability unit IIIe-1; woodland suitability group 3o1.

Riverhead very stony sandy loam, 3 to 8 percent slopes (ReB).—This gently sloping Riverhead soil is on Fishers Island. It is on morainic deposits, and the areas are complex and undulating, characteristic of moraines. Areas of this soil are small, and they make up a very small part of the total acreage of the county.

The profile of this soil is similar to the one described as representative of the series, except that it has many stones larger than 10 inches in diameter scattered over the surface. In addition, this soil contains more fine sand than the soil described as representative of the series.

Included with this soil in mapping are small areas that have no stones or that have too few stones to be classified stony. A very small acreage of Plymouth soils that are very stony are included.

The hazard of erosion is moderate to slight on this Riverhead soil. The stones on the surface of this soil limit its use to woodland or pasture.

This soil is pooorly suited to farming. Some areas are cleared, but they are not farmed. These areas have been left idle, and most of them are reverting to woodland. Areas on Fishers Island are mainly used as sites for large estates. This soil has little value for uses other than woodland or hunting areas. Capability unit VIs-1; woodland suitability group 3o1.

Riverhead very stony sandy loam, 8 to 15 percent slopes (ReC).—This soil is on Fishers Island. It is on morainic deposits. Many closed depressions or kettle holes are on the surface. The areas of this soil are small to medium.

The profile of this soil is similar to the one described as representative of the series, except that many stones larger than 10 inches in diameter are scattered over the surface or are imbedded in the soil. Also, this soil contains more fine sand than the soil described as representative of the series.

Included with this soil in mapping are small areas that have no stones or that have too few stones to be classified stony. In addition, areas of Plymouth soils, 8 to 15 percent slopes, that are very stony make up about 10 percent of this unit.

The hazard of erosion is moderate on this Riverhead soil. The stones on the surface of this soil limit its use to woodland or to pasture.

This soil is poorly suited to crops. Some areas are cleared, but most areas have been allowed to revert to brush or trees. This soil has little value for uses other than woodland and hunting areas. Capability unit VIs-1; woodland suitability group 3o1.

Riverhead and Haven soils, graded, 0 to 8 percent slopes (RhB).—This mapping unit consists of areas of Riverhead sandy loam, of Haven loam, or of both. The areas have been altered by grading operations for housing developments, shopping centers, industrial parks, and similar nonfarm uses. In the western part of the county, the areas of this mapping unit are very large, and large acreages are used as sites for housing developments (fig. 14).

Originally, the Riverhead and Haven soils in this unit each had the profile described as representative of its respective series, but grading operations have left a man-made profile that is significantly different. In places the surface layer and the upper part of the subsoil have been removed, but in other places they have been left undisturbed. Undisturbed areas have been filled with soil material cut from adjoining high spots, but the Riverhead and Haven soils can be identified because sufficient diagnostic characteristics of the respective series remain. In some areas Riverhead and Haven soils that have not been graded make up as much as 25 percent of this unit. In places another 10 to 15 percent has been so deeply cut or filled that the upper 40 inches is sandy and contains no diagnostic horizons of the respective series.

Included with these soils in mapping are areas in which most or all diagnostic horizons have been destroyed, but these areas contain at least 12 inches of loam, silt loam, or sandy loam in the upper 40 inches. In places this 12 inches of material is in one layer, and in others it is in several thinner layers. Also included are small areas of Cut and fill land and Montauk soils, graded.

These soils are suited to most grasses and shrubs generally used for lawns and landscaping. In places very deeply cut or filled areas are slightly droughty and need supplemental irrigation. The response of plants to applications of lime and fertilizer is good. The practice generally is to build on the soils immediately after grading; therefore, the number of existing buildings on areas of the soils in this unit is the main factor in determining their future uses. Capability unit not assigned; woodland suitability group not assigned.

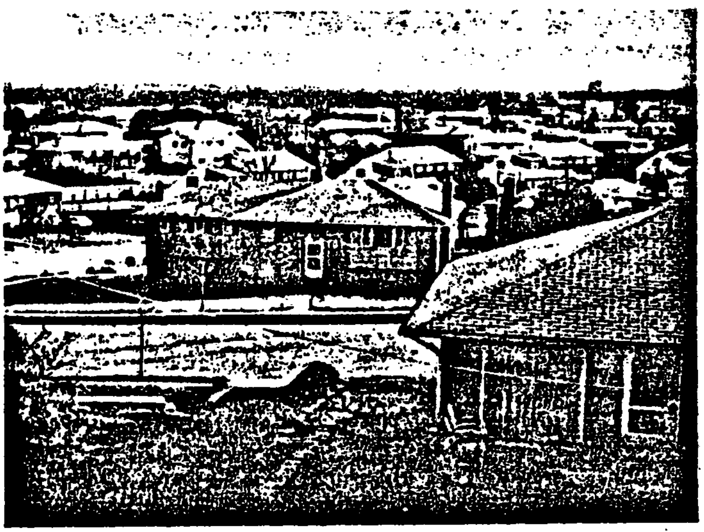

Figure 14.—Housing development on an area of Riverhead and Haven soils, graded, 0 to 8 percent slopes. Density and pattern are typical of other developments on graded soils and on Cut and fill land, gently sloping.

Riverhead and Haven soils, graded, 8 to 15 percent slopes (RhC).—This mapping unit consists of areas of Riverhead sandy loam, of Haven loam, or of both. These soils have been altered by grading operations for housing developments, shopping centers, industrial parks, and similar nonfarm uses. Most areas of this unit are small, and are along moderate slopes. These areas are within large areas of level Riverhead and Haven soils that are being shaped.

Originally, the Riverhead and Haven soils in this unit each had the profile described as representative of its respective series, but grading operations have left a man-made profile that is significantly different. The surface layer and most of the subsoil have been removed by cutting or these layers have been buried by fill material, but sufficient diagnostic characteristics remain, so that the Riverhead and Haven soils can be identified according to their respective series. Because of slope, more extensive cuts and fills have been made on this unit than on Riverhead and Haven soils, graded, 0 to 8 percent slopes. In places areas of Riverhead and Haven soils that have not been graded make up 25 to 30 percent of this unit. In other places 15 to 20 percent has been so deeply cut or filled that no diagnostic horizons of the respective series remain in the upper 40 inches of the soil material.

Included with these soils in mapping are soils that contain at least 12 inches of loam, silt loam, or sandy loam in the upper 40 inches, but they do not have horizons characteristic of Riverhead and Haven soils. In places this 12 inches of material is in one layer, but in other places it is in several thinner layers. Also included are small areas of Cut and fill land.

These soils are suited to most grasses and shrubs generally used for lawns and landscaping. If they are used for this purpose, however, a cover of plants is needed to protect sloping areas from erosion. Areas in which there are deep cuts and fill generally are droughty and low in natural fertility; therefore, supplemental irrigation and heavy applications of lime and fertilizer are needed. Generally, the number of buildings on a site determines the future use of these soils. Capability unit not assigned; woodland suitability group not assigned.

Riverhead and Plymouth very bouldery soils, 15 to 35 percent slopes (RpE).—These very bouldery soils are only on Fishers Island. The areas consist of Riverhead soils, of Plymouth soils, or of a combination of the two. The surface layer of these soils is sandy loam or loamy sand. These soils have either short, steep, single slopes or complex slopes that have numerous depressions or kettle holes. Most areas are medium to large in size.

Riverhead and Plymouth soils both have a profile similar to that described as representative of their respective series, except that many large boulders several feet in diameter are scattered over the surface and imbedded in the soil.

Included with these soils in mapping are small areas that are less bouldery than the areas of the soils in this unit. Also included are small areas of very bouldery soils that have slopes of less than 15 percent. These areas generally are in large areas where the topography is complex. Narrow bands of extremely bouldery soils are included along short steep breaks.

5

(83)


(Joins sheet 74)
N
LONG ISLAND
NAL CEMETERY
WYANDANCH
PINELAWN CEMETERY
BETH MOSES CEMETERY
WELLWOOD CEMETERY
MONTEFIORE CEMETERY
SITE LOCATION
WEST BABYLON
NORTH LINDENHURST
RdA
CuB
RhB
HaA
HaB
Gp
Me
Ur
RhB
(Joins sheet 84)
180 000 FEET
1 Mile
5 000 Feet
0
Scale 1:20 000
1 000
2 000
3 000
4 000
5 000
¼
½
¾
1
(Joins sheet 90)
2 175 000 FEET

100

6

Nov. 12, 1975

Gaess Environmental Services Corp.
253 River Drive
Passaic, N.J. 07055

Att'n: Ron Kiley

Gentlemen:

On Nov. 7, 1975 I conducted an inspection at Jameco Industries, Inc. on Wyandanch Ave., Wyandanch, Suffolk County, N.Y. They employ your services for the removal of metal sludges.

At the time of my inspection, I observed one of your trucks (Lic. # XHU-52U-N.J. Commercial) pumping out their sludge holding tank. During this process the connection between the pipe and the truck was observed to be leaking. I could not determine the cause of this leak but it caused the discharge of 30 - 50 gallons of sludge onto the surface of the ground. With subsequent rains and other forms of precipitation this material will enter the groundwaters and become a pollutant.

Your firm is approved by this office as an industrial waste scavenger. This means that not only should you dispose of the industrial waste suitably but that you and your employees are cognizant of the toxicity of the materials you handle and, therefore, exercise the necessary caution to prevent occurrences such as the one described above.

Please be sure that this problem does not repeat itself with this or any of your other trucks or crews. You should be aware that a recurrence of this type will result in the subsequent revocation of all approvals for scavenging wastes authorized by this Department.

If you have any questions please do not hesitate to contact this office.

Very truly yours,

Roy Gilbert
Water Pollution Control Section
RG/rt

8

N.Y.S Dept

June 15, 1979

Mr. Israel Gajer
Jameco Industries, Inc.
248 Wyandanch Ave.
Wyandanch, N.Y. 11798

Dear Mr. Gajer:

In previous discussions with you, I indicated that your State Pollutant Discharge Elimination System (SPDES) permit does not expire until 1980. However, the permit was issued for three years and has already expired.

Enclosed find new application forms, which you must complete for renewal of your permit, and return to this office.

Also, please enclose a check made out for the proper amount to New York State Department of Environmental Conservation.

In other matters, an inspection of your plant on May 31, 1979 revealed several violations, which must be corrected:

The drum storage area is inadequate. You have uncovered sludge drums and no protection against leakage or spillage. This area must be cleaned up as soon as possible.

Thirty of your cesspools were overflowing with green colored waste water, which indicates that your treatment system is not operating.

The northeast side of the property shows puddles originating from boiler blowdown. This material must be held in drums or discharged properly in outfall #006 as indicated in your permit.

A chrome plating solution was improperly stored outside the building. There were approximately 1,000 gallons of this solution, which could easily spill onto the ground. This must be removed

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from the site, if not being used.

A reinspection will take place within the next two weeks to determine your compliance in these matters.

We would also like to receive the SPDES applications by the end of this month.

Thank you very much for your kind attention. If you have any questions please do not hesitate to contact this office.

Very truly yours,

Stephen A. Costa, P.E.
Sr. San. Engineer
Industrial Waste and Hazardous
Materials Control Section
SAC/rt
Encl.
cc: Donnelly Engineering
425 New York Ave., Huntington, N.Y. 11743

7

Nyssnp

DEPARTMENT OF HEALTH SERVICES

INTEROFFICE MEMORANDUM

To: For the Record

Date: January 10, 1979

From: Louis Copertino

Subject: Jameco Industries, Inc.
248 Wyandanch Avenue, Wyandanch

On January 9, 1979 an inspection was made at the above location. It was noted that the storage area for industrial waste located just north of the open sumps contains some drums that are improperly stored. These drums are not sealed properly and one drum of brite dip sludge was on its side.

Mr. Henry Farell was contacted and was informed of the potential hazards regarding this situation. He was told that cleanup of this area would have to be implemented immediately, replacing any contaminated soil with clean fill and disposing of this soil to an approved industrial waste scavenger.

A reinspection will be made by the writer in approximately 10 days.

LC:DB

MIS DEPT. ... File

7 ... Wyandanch 9

INTER-OFFICE MEMORANDUM

DEPARTMENT OF HEALTH SERVICES

TO: Joseph H. Baier, P.E.

FROM: Richard Markel, P.E.

DATE: July 5, 1979

SUBJ: Investigating Origin of Organic Contamination at 94 Ulster Avenue in Wyandanch

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On 7/5/79, I received a call from Roy Gilbert requesting our assistance in determining the origin of Organic Contamination found at Mr. Petty's house, 94 Ulster Avenue.

Preliminary analyses indicate 100,000 ppb 1,1,1 Trichloroethane and 16,000 ppb Tetrachloroethylene in Mr. Petty's tap water.

Groundwater flow in this area is in a southeasterly direction towards Belmont Lake. Depth to water is approximately 12 feet. The suspected origin of the Organic Contamination is Jameco Manufacturing Co. located on Wyandanch Avenue just upstream of Mr. Petty's house on Ulster Avenue.

It is proposed that we drill a series of wells downgradient of the suspected origin of this contamination to determine its source. The enforcement section will get permission and markouts so we can commence drilling as soon as possible.

In addition, we have well S 56351 which is located on the corner of Wright Street and Ulster Avenue which should be sampled for the above indicated organic contaminants. This well was installed as part of the Carll's River Study and is screened approximately 15 feet below the top of the water table.

Please advise if the above proposed course of action meets your approval.

Rich - Proceed with permits

RM/lfs RM

cc: Jim Pim
Roy Gilbert
Dennis Moran

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John Soderberg — Sept. 24, 1979

R. Olsen

Jameco Industries, Inc.
248 Wyandanch Ave.
Wyandanch

On 9/20/79, during an inspection of a company across from Jameco Industries, I noted a large plume of yellow gases being emitted from the roof of Jameco. This emission lasted approx. 10 min. before ceasing. The gas emitted did not disperse but remained fairly persistent. The gas also appeared to be heavier than air as it sank to ground level where I encountered it. It burned the eyes and internal mucous membranes when inhaled.

About 40 min. later, after concluding my inspection at an unrelated company, I again noted an emission of the same type as previously observed. This latter emission lasted approx. 5 min. Local business representatives have stated that this emission is a fairly frequent practice.

Since I am not an air pollution specialist, I am turning this matter over to you for your follow-up, if you feel it is warranted.

R. Olsen
RO/rt

undated //

NAME: Jameco

LOCATION: Town of Babylon, Wyandanch, Suffolk County, Long Island, New York.

DEFENDANTS: Jameco Industries; consultant: AKRF Engineering, Arnie Flemming

LAWYERS: Nancy Stearns, Bob Osar

HISTORICAL: Case referred to us by Suffolk County Department of Health Services (SCDOHS).

SITE DESCRIPTION: Jameco, one of the largest family owned commercial plating companies in the nation, produces chrome and nickel plated plumbing fixtures. The facility consists of a large process building, offices, a storage warehouse, and yard space. The on-site waste treatment system includes components to adjust pH, precip settling tanks, and an industrial cesspool (leachfield). In the past this system has not been able to consistently achieve compliance with the facilities State Pollution Discharge Elimination System (SPDES) permit. Prior to 1975, the storage yard contained two, perhaps three sludge drying beds. According to the company, these were properly abandoned and the sludge taken by a licensed hauler.

The site is located less than a ¼ mile down gradient from a deep public water supply well which, to date, has not been impacted by activities at Jameco. Private residences are located along plants southern boundary, and some are on private water supply.

The geology of the area is typical of Long Island. The drillers log for the 669 feet deep public supply well (included in the case file) indicates coarse sand and gravel to a depth of 87 feet, underlain by alternate clay and sand layers. Groundwater, which is encountered at a depth of 9 to 10 feet, generally flows south-southeast towards Belmont Lake.

CONTAMINATION: SCDOHS compiled numerous analyses of plant wastewater that exceeded SPDES limits, and collected groundwater samples from two temporary wells that demonstrated down gradient nickel contamination at concentrations of up to 32 ppm. A Department of Law/ Department of Health borehole investigation (utilizing hollow stem auger) in the area of the old sludge beds encountered significant pockets of concentrated sludge containing greater than 20,000 ppm of nickel, chrome, and other metals.

CURRENT STATUS:

A complaint has been filed, and we are in the process of trying to negotiate a settlement with the company to do the following:

a) investigate and map any potential plume.
b) upgrade their waste treatment system to to comply with SPDES limits.
c) clean or demonstrate the cleanliness of the sludge bed area.
d) test tap water for those residences on private supply.

Jameco has already hired consultants to perform a number of tasks for them. The company is in the process of installing a new $1,000,000 waste treatment system, and has performed a field study that includes soil and groundwater sampling. Additionally, Jameco has filed with NYSDEC for a SPDES permit renewal, using the opportunity to contest the SCDOHS decision not to grant Jameco a reduction in process water usage.

Trip 1979 S.C. - Wyandanch 12

INTER-OFFICE MEMORANDUM

DEPARTMENT OF HEALTH SERVICES

TO: Jim Pim, P.E.

FROM: Richard Markel, P.E.

DATE: February 15, 1980

SUBJ: Investigating Origin of Organic Contamination at 94 Ulster Avenue in Wyandanch

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In July of 1979 a preliminary analysis of tap water obtained from 94 Ulster Avenue in Wyandanch indicated very high trace organic contamination. Trichloroethane was found at a concentration of 100,000 ppb and tetrachloroethylene at 16,000 ppb. In response to this contamination, an investigative drilling program was begun. A total of six wells were drilled in the vicinity of the Ulster Avenue contamination and samples were obtained at various levels in the aquifer. The locations of the wells were chosen to conform with a southeasterly groundwater direction, to determine a possible upstream source of the contamination. The results of this investigation are summarized in Table I and the attached map of the area.

The overall investigation so far indicates that the highest contamination is occurring in the vicinity of house #94 on Ulster Avenue. From the work completed to date it does not appear that Jameco is the origin of this contamination. The extremely high concentrations of 1,1,1 trichloroethane and tetrachloroethylene found in Mr. Petty's drinking water indicates that perhaps this contamination was caused by the use of a cesspool solvent that somehow got directly into his well. However, the investigation also shows that there is widespread trace organic contamination in the area that exceeds New York State guidelines for drinking water. Because of the relatively lower concentrations of contaminants found adjacent to house #94 on Ulster Avenue further drilling is not recommended at this time. It appears that the source of the contamination is not a dumping area or a deliberate or accidental spill.

RM/lfs
Attachments

cc J. Baier
S. Costa

...es: ...CEIPT FOR YOUR $2... ...

...ile

...n #1

...s

. Crandall, BP&C

... Adamczyk, BIP

...e M. D'Abramo -

...n of Babylon Env. Control

13

Facility ID No. : NY-...

Effective Date (EDP) : May 1, 1980

Expiration Date (ExDP) : May 1, 1985

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
DISCHARGE PERMIT

Special Conditions
(Part I)

This SPDES permit is issued in compliance with Title 8 of Article 17 ...f the Environmental Conservation Law of New York State and in compliance with the ...lean Water Act, as amended, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

...ECO INDUSTRIES
2-3 WYANDANCH AVENUE
WYANDANCH, NEW YORK 11798

...N: MR. ISRAEL GAJER

...authorized to discharge from the facility described below:

...eco Industries
46 Wyandanch Avenue
...abylon (T), Suffolk County
...ndanch, New York

...o receiving waters known as:

...oundwaters

...ccordance with the effluent limitations, monitoring requirements and other conditions ... forth in this permit.

This permit and the authorization to discharge shall expire on midnight ...e expiration date shown above and the permittee shall not discharge after the ...piration date unless this permit has been renewed, or written authorization is given ...the Department. In order to receive authorization to discharge beyond the expiration ... the permittee shall submit such information, forms, and fees as are required by ...e Department of Environmental Conservation no later than 180 days prior to the ...iration date.

Authority of George K. Hansen, P.E., Chief, P.D.E.S. Permit Section
Designated Representative of Commissioner of the
Department of Environmental Conservation

APR 15 1980

Date

George K. Hansen

Signature

O

Facility ID No. : N.Y.- 0$08 1540

Effective Date (EDP) : EDM 13

Expiration Date (ExDP) : May 1, 1985

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
DISCHARGE PERMIT

Special Conditions
(Part I)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

Permittee Name: Jameco Industries

Permittee Street: 248 Wyandanch Ave.

Permittee City: Wyandanch State: NY Zip Code: 11798

is authorized to discharge from the facility described below:

Facility Name: Jameco Industries

Facility Location (C,T,V): Babylon (T) County: Suffolk

Facility Mailing Address (Street): 248 Wyandanch Ave.

Facility Mailing Address (City): Wyandanch State: NY Zip Code: 11798

into receiving waters known as: Groundwater

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal as prescribed by Sections 17-0803 and 17-0804 of the Environmental Conservation Law and Parts 621, 752, and 755 of the Departments' rules and regulations.

By Authority of ______________________________
Designated Representative of Commissioner of the
Department of Environmental Conservation

______________________ Date

______________________ Signature

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP
and lasting until May 1, 1985
the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Discharge Limitations Daily Max.	Units	Monitoring Reqmts. Measurement Frequency	Monitoring Reqmts. Sample Type
001 No monitoring required. Sanitary wastes only, no industrial wastes shall be allowed.					
002 No monitoring required. Sanitary wastes only, no industrial wastes shall be allowed.					
003* Flow		25,000	gpd	Continuous	Recorded
Chromium-Hexavalent		.1	mg/l	Twice Monthly	Composite
Chromium-Total		1	"	"	"
Copper-Total		1	"	"	"
Cyanide-Total		.4	"	"	"
Iron-Total		.6	"	"	"
Lead-Total		.05	"	"	"
Nickel-Total		2	"	"	"
Zinc-Total		5	"	"	"
MBAS		1.5	"	"	"
COD		150	"	"	"
pH (Range)	6.5 - 8.5		SU	"	Grab

* NOTE: Samples shall be collected from the treated industrial waste prior to admixture with cooling water.@004

*Based on a single seven (7) hour daily shift.

*Treated process rinse water before combination with 004

The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. If use of new boiler/cooling water additives is intended, application must be made prior to use.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS continued

During the period beginning EDP
and lasting until 5 Years from EDP
the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Discharge Limitations Daily Max.	Units	Monitoring Reqmts. Measurement Frequency	Monitoring Reqmts. Sample Type
004					
Flow	70,000 *	NA	gpd	No monitoring required	
Fluoride		3	mg/l	"	Composite
Total Dissolved Solids		1000	"	"	"
Total Nitrogen (As N)		10	"	"	"

The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. If use of new boiler/ cooling water additives is intended, application must be made prior to use.

* Includes 45,000 gpd non-contact cooling water and 25,000 gpd of process water from 003

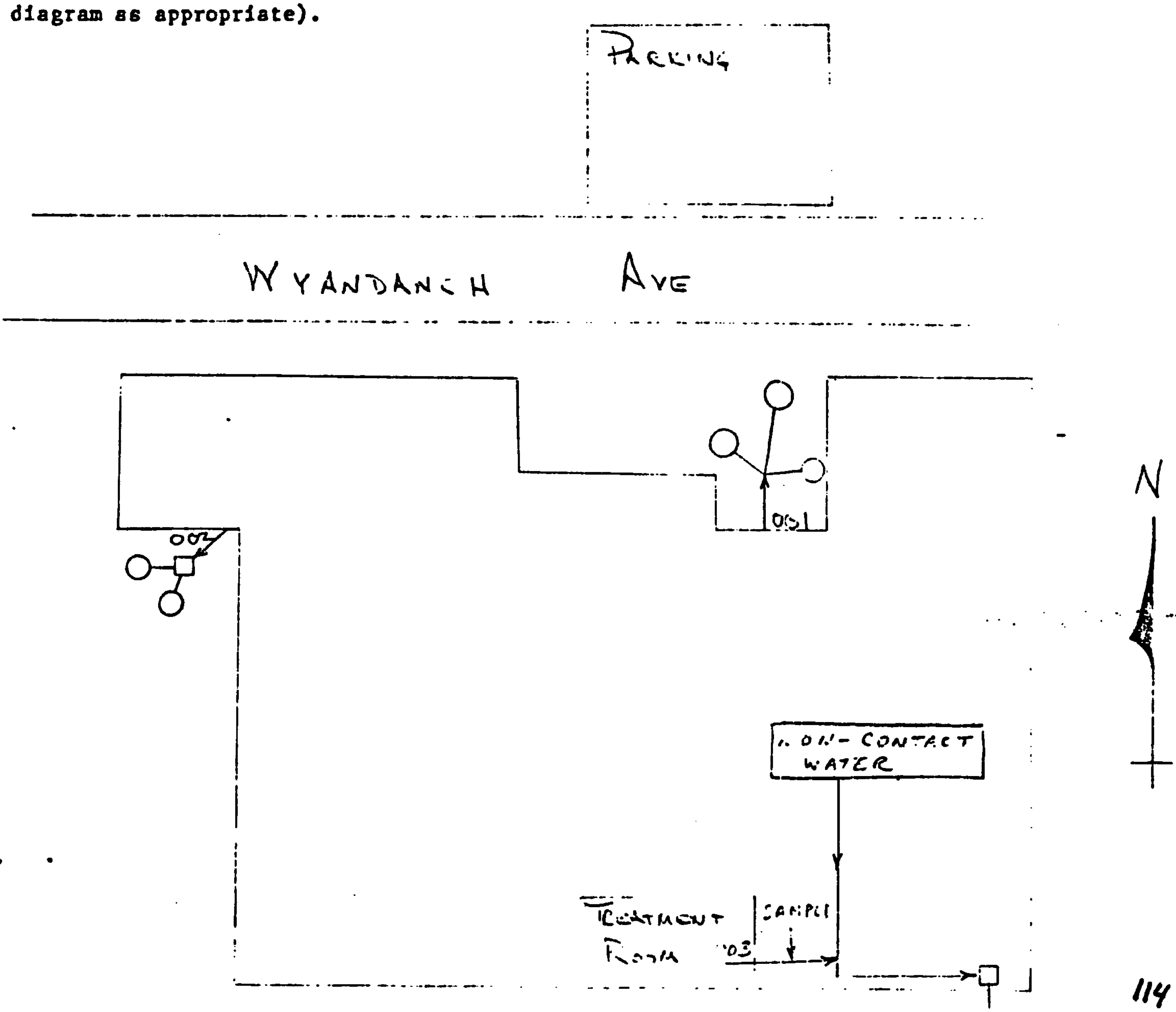
Definition of Daily Average and Daily Maximum

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when the measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

Monitoring Locations

Permittee shall take samples and measurements to meet the monitoring requirements at the location(s) indicated below: (Show locations of outfalls with sketch or flow diagram as appropriate).



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ORING, RECORDING AND REPORTING

a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized and reported by submitting a completed and signed Discharge Monitoring Report form once every ; months to the Department of Environmental Conservation and other appropriate regulatory agencies at the offices specified below. The first report will be due no later than Thereafter, reports shall be submitted no later than the 28th of the following month(s):

Water Division
New York State Department of Environmental Conservation
50 Wolf Road - Albany, New York 12233

New York State Department of Environmental Conservation
Regional Engineer 1
NYS SUNY, BLdg. 40
Stony Brook, NY 11790

Suffolk Co. Department of Health Services
15 Horseblock Place
Farmingville, NY 11738

☐ (Applicable only if checked):

Dr. Richard Baker, Chief - Permits Administration Branch
Planning & Management Division
USEPA Region II
26 Federal Plaza
New York, New York 12078

c) If so directed by this permit or by previous request, Monthly Wastewater Treatment Plant Operator's Reports shall be submitted to the DEC Regional Office and county health department or county environmental control agency specified above.

d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Reports.

f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

g) Unless otherwise specified, all information submitted on the Discharge Monitoring Form shall be based upon measurements and sampling carried out during the most recently completed reporting period.

h) Blank Discharge Monitoring Report Forms are available at the above addresses.

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APPLICATION FOR WASTE DISPOSAL PERMIT

ENGINEERING REPORT

PART I

SUBMITTED TO NEW YORK STATE DEPT. OF ENVIRONMENTAL CONTROL

BY

JAMECO INDUSTRIES, INCORPORATED
248 WYANDANCH AVENUE
WYANDANCH, NEW YORK 11798

PREPARED BY

DONNELLY ENGINEERING
10 JEFFERSON AVENUE
ST. JAMES, NEW YORK 11780

PRELIMINARY

AUGUST 1980

CORPORATE OFFICER ______________________________

____
LAWRENCE A. DONNELLY
PE NYS 46645

80-57

A.2 Identification of Pollutants

The industrial wastewater at Jameco Industries is produced in the metal cleaning and pickling areas and the electroplating Udylite machine. The wastewater produced is essentially from the rinsing operations which follow the various concentrated process tanks. Occasionally some of the concentrated process baths are discharged and held for hauling by an approved scavenger.

The wastewater from this factory contains the following contaminants:

Heavy Metals: Chromium (Hex), Chromium (T), Copper, Nickel, Zinc, Iron

Nitrogen (N)

Chlorides (Cl)

Sulfates (SO_4)

Fluoride (F)

Total Dissolved Solids (TDS)

MBAS

COD

pH

A.3 Classification of Receiving Waters

Jameco Industries is located 11,800 feet North of the North 40 42'30" Latitude Line, and 6000 feet East of the West 73 20'00" Longitude Line as shown on the Topographic Map, Figure 1.

The local environment consists of a mixture of industrial and residential areas. The land is level. The property is approximately 50 feet above sea level. The property is situated at 248 Wyandanch Avenue, Wyandanch, New York. Leaching pool disposal of raw sewage is customary in this area. Industrial wastewater is similarily disposed of in leaching pools. The receiving groundwaters are classified as GA. A portion of the USGS Topographical Quadrangle Map is presented in Figure 1.

Water for the factory is supplied by a private well and the Suffolk County Water Authority. Projected water consumption shall be 4500 gpd of industrial process water, and 20,000 gpd of non contact cooling water.

A.4 Requirements for Waste Treatment

The domestic wastewater from this factory is from toilets, wash basins and drinking fountains. There are no sources of kitchen waste on the premises. The domestic sewage will pass directly to the sanitary leaching system for wastewater disposal.

The industrial wastewater from this factory is essentially rinse water coming from the final finishing area where the cleaning and electroplating procedures are located. The water treatment design criteria are taken from "Groundwater Classifications, Quality Standards and Effluent Standars and/or Limitations" (Title 6, Official Compilation of Codes, Rules and Regulations, Part 703, Effective September 1, 1978). This reference lists limits of specific physical and chemical wastewater characteristics before discharge to the groundwater is permissible. The significant wastewater pollutants were identified in Section A.2. The following table gives the permissible concentrations at the time of discharge, as set forth in the existing SPDES Permit effective May 1, 1980.

TABLE 1 - Limitations on Effluent Wastewater Contaminants

Substance	Concentration (mg/l)
Chromium (Hex)	0.1
Chromium (T)	1.0
Copper	1.0
Iron	0.6
Nickel	2.0
Zinc	5.0
Total Nitrogen (N)	10.0
Total Dissolved Solids	1000.0
MBAS	1.5
COD	150.0
pH: 6.5-8.5	

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B.2 Description of Factory Wet Processes

Brass and stainless steel components are cleaned and plated at this facility. The cleaning procedure is shown on a process flow schematic on Drawing JAM-04. These two processes would be the source of nitrates, chloride, sulfate, and MBAS type contaminants present in the industrial wastewater. The plating procedures are shown on a process flow schematic on Drawing JAM-03. All parts are plated with nickel and chrome following a cleaning and pickling operation at the beginning of the automatic plating machine. These procedures are the source of all heavy metals present in this wastewater as well as nitrate, fluoride and MBAS compounds. The contaminant producing a COD is the sodium bisulfite used in the reducing rinse to convert hexavalent chromium to the trivalent state. A slight excess of this chemical could exert a significant COD in the wastewater and would not be removed by the existing treatment methods.

The following pages list the tanks used in the cleaning and plating processes with the materials present along with the concentration of each item.

Appendix C

HAZARDOUS WASTE DISPOSAL SITES REPORT
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Code: 2a

Site Code: 152006

Name of Site: Jameco Industries Inc. **Region:** 1

County: Suffolk **Town/City** Wyandanch

Street Address 248 Wyandanch Ave.

Status of Site Narrative:
The site is located in a densely populated area. From 1964 to 1975, two large unlined lagoons were used for on-site disposal of metal plating wastes. In

1975, the lagoons were abandoned and the sludge was reportedly excavated and hauled off-site. The lagoons were subsequently backfilled. A waste disposal system consisting of 48 leaching pools replaced the sludge ponds in mid-1975. Activities include metal finishing and nickel and chrome electroplating of brass and copper plumbing fixtures. Wastes include metals and solvents from cleaning processes. The site consists of the main process building with offices, a warehouse,above ground tanks, an area of abandoned and filled sludge beds, and a leaching field composed of 48 leaching pools. Two wells are located on-site.

Type of Site: Open Dump ☐ Landfill ☐ Structure ☐ Treatment Pond(s) ☒ Lagoon(s) ☒ Number of Ponds ____ Number of Lagoons ____ 48 total

Estimated Size 6 **Acres**

Hazardous Wastes Disposed? Confirmed ☒ Suspected ☐

***Type and Quantity of Hazardous Wastes:**

TYPE	QUANTITY (Pounds, drums, tons, gallons)
Nickel, chromium, lead,copper	
solvents-trichloroethylene	unknown

* Use additional sheets if more space is needed.

Name of Current Owner of Site: Jameco Industries, Inc.

Address of Current Owner of Site: 248 Wyandanch Ave, Wyandanch, NY, 11798

Time Period Site Was Used for Hazardous Waste Disposal:

, 1964 To present , 19

Is site Active [x] Inactive [ ]

(Site is inactive if hazardous wastes were disposed of at this site and site was closed prior to August 25, 1979)

Types of Samples: Air [ ] Groundwater [x] None [ ]
Surface Water [ ] Soil [x]

Remedial Action: Proposed [ ] Under Design [ ]
In Progress [ ] Completed [x]

Nature of Action: Lagoon area excavated and sludge reportedly hauled off-site 1975.

Status of Legal Action: NYState Dept. of Law complaint, 1981 State [x] Federal [ ]

Permits Issued: Federal [ ] Local Government [ ] SPDES [x]
Solid Waste [ ] Mined Land [ ] Wetlands [ ] Other [ ]

Assessment of Environmental Problems:

On-site soil contamination with metals and solvents observed on numerous occasions from 1974-1984.
Groundwater contamination exists in the immediate site area (samples collected 1976, 1979,1981,1984). On-site production well is reportedly contaminated with volatile organics. Surface overflow of wastewater leaching pools has been reported.

Assessment of Health Problems:

Public water supply wells are within 300 feet of site. Over 100,000 people within 3 miles depend on groundwater as sole source of potable water. Potential for groundwater contamination and resultant public health threat for population using the water.

Persons Completing this Form:

Linda Wade, Woodward-Clyde Consultants

New York State Department of Environmental Conservation

Date April 15, 1986

New York State Department of Health

6/3/81
RPM:cl

.O. IW-/(3037
.D /1-20-83 By [illegible]
.ELD NO. 5 5510-20

DATE COMPLETED 11-21-
EXAMINED BY [illegible]
37

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF INDUSTRIAL WASTE

Name Jameco Ind Inc.

Location Wyandanch Ave. Wyandanch

Point of Collection SPDES DISH. POOL # B-4

Remarks:

Compound	pbb	Compound	ppb
Methylene Chloride..........		Cis Dichloroethylene..........	<16
Freon 113....................	<4	Benzene.......................	<10
Chloroform..................	<5	Toluene.......................	<10
1,1,1 Trichloroethane.......	6	Chlorobenzene.................	<12
Carbon Tetrachloride........	<1	Ethylbenzene..................	<10
1,1,2 Trichloroethylene.....	16	Xylene(s).....................	<10
Bromodichloromethane........	<3	Bromobenzene..................	<16
1,1,2 Trichloroethane.......	<5	Chlorotoluene(s)..............	<12
Chlorodibromomethane........	<2	1,3,5 Trimethylbenzene........	<10
Tetrachloroethylene.........	200	1,2,4 Trimethylbenzene........	<10
Bromoform...................	<5	m,p-Dichlorobenzene...........	<14
1,1,2,2 Tetrachloroethane...	<3	o-Dichlorobenzene.............	<14
Octane......................	<40	p-Diethylbenzene..............	<10
Styrene.....................	<10	1,2,4,5 Tetramethylbenzene....	<10
n-Nonane....................	<40	1,2,4 Trichlorobenzene........	<16
p-Ethyltoluene..............	<10	1,2,3 Trichlorobenzene........	<18
n-Decane....................	<40		
n-Undecane..................	<40		

During transport of the sample from collection point to laboratory, the chain of custody must not be broken. The sample should be delivered by the sample collector or a designated representative who will sign for the receipt, integrity, and transfer of the sample during shipment.

	SIGNATURE	AFFILIATION	DATE	TIME
1. Collected by	JoAnne Johnson	SCDHS	10/20/83	10:30 AM
2. Transfered to	David Obey	SCDHS	10/20/83	1:00 PM
3. Transfered to	Francis J Amendola	SCDHS-PHL	10/20/83	2:00 P.
4. Transfered to				

55510-20

NO. IW-1083039
REC'D 10-20-83 BY CA
FIELD NO. 13 JJ 10-20

DATE COMPLETED 11-21-83
EXAMINED BY JH

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SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF INDUSTRIAL WASTE

Name JAMECO IND. INC.

Location WYANDANCH AVE. WYANDANCH. *

Point of Collection WELL POINT INSIDE JAMECO FROM SPIGOT.

Remarks:

Compound	pbb	Compound	ppb
Methylene Chloride		Cis Dichloroethylene	<16
Freon 113	<4	Benzene	<10
Chloroform	<5	Toluene	<10
1,1,1 Trichloroethane	9	Chlorobenzene	<12
Carbon Tetrachloride	<1	Ethylbenzene	<10
1,1,2 Trichloroethylene	5	Xylene(s)	<10
Bromodichloromethane	<3	Bromobenzene	<16
1,1,2 Trichloroethane	<5	Chlorotoluene(s)	<12
Chlorodibromomethane	<2	1,3,5 Trimethylbenzene	<10
Tetrachloroethylene	430	1,2,4 Trimethylbenzene	<10
Bromoform	<5	m,p-Dichlorobenzene	<14
1,1,2,2 Tetrachloroethane	<3	o-Dichlorobenzene	<14
Octane	<40	p-Diethylbenzene	<10
Styrene	<10	1,2,4,5 Tetramethylbenzene	<10
n-Nonane	<40	1,2,4 Trichlorobenzene	<16
p-Ethyltoluene	<10	1,2,3 Trichlorobenzene	<18
n-Decane	<40		
n-Undecane	<40		

SCDHS Sample ~~83~~ R1 D08-16
Mar. 16, 83
tet - 700 ppb
Tri <12 ppb

During transport of the sample from collection point to laboratory, the chain of custody must not be broken. The sample should be delivered by the sample collector or a designated representative who will sign for the receipt, integrity, and transfer of the sample during shipment.

	SIGNATURE	AFFILIATION	DATE	TIME
1. Collected by	JoAnne Johnson	SCDHS	10/20/83	11:00 AM
2. Transfered to	David Oberg	SCDHS	10/20/83	1:00 PM
3. Transfered to	Francis J Amendola	SCDHS-PHL	10-20-83	2:00 PM
4. Transfered to				

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SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

16-247 2/82

FIELD NO. ~~2 JJ1020~~ ~~3 JJ1020~~ 4 JJ1020 LAB NO. 10/83-262 DATE COMPLETED 11/1/83

NAME OR FIRM Jameco

ADDRESS OR LOCATION Wyandanch Ave, Wyandanch

POINT OF COLLECTION Distribution Pool

REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l	X	COPPER 1.0	3.6 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		X	IRON	.1
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
MBAS				X	CHROMIUM-TOT	<.02
COD				X	NICKEL	1.3
TOC				X	ZINC	.33
				X	LEAD	<.2
				X	CADMIUM	<.02
NITRATE-N				X	SILVER	.07
NITRITE				X	CHROMIUM-+6	—
AMMONIA-N						—
TKN 10.0	2.0	pH (FIELD)				
Fluoride 3.0	1.7	TEMP. (FIELD)				

NO METHOD OF PRESERVATION ☐ HNO_3 TO pH <2 ☐ COOL 4° C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE / DATE – TIME	TIME / TO DATE – TIME
1. COLLECTED BY	J JOHNSON	SCDHS	10/20/83	10 35 AM
2. POSSESSION BY	J JOHNSON	SCDHS	10/20/83 10 35 AM	10/20/83 12 15 pm
3. POSSESSION BY				
4. RECEIVED LAB BY	G.m		10/20 1m	
5 POSSESSION BY				
POSSESSION BY				

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SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

FIELD NO. 10 JJ1020 / 11 JJ1020 / ~~12 JJ1020~~ LAB NO. 10/83-264 DATE COMPLETED 11/1/83

NAME OR FIRM: JAMECO

ADDRESS OR LOCATION: Wyandanch Ave, Wyand

POINT OF COLLECTION: Leeching Pool, C10

REMARKS/INSTRUCTIONS:

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l	X	COPPER	.62 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		X	IRON	.1
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
MBAS				X	CHROMIUM-TOT	.03
COD				X	NICKEL	.6
TOC				X	ZINC	.22
				X	LEAD	<.2
				X	CADMIUM	<.02
NITRATE-N				X	SILVER	<.02
NITRITE					CHROMIUM-+6	
AMMONIA-N						
TKN	.5	pH (FIELD)				
Fluoride	.6	TEMP. (FIELD)				

No METHOD OF PRESERVATION ☐ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE – TIME		DATE – TIME
1. COLLECTED BY	J JOHNSON	SCDHS	10/20/83 (DATE)		11[15] AM (TIME)
2. POSSESSION BY	J JOHNSON	SCDHS	10/20/83 11[15] AM	TO	10/20/83 12[15]
3. POSSESSION BY				TO	
4. RECEIVED LAB BY	B.M		10/20 PM (DATE)		(TIME)
5. POSSESSION BY				TO	
6. POSSESSION BY				TO	

SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247 2182

FIELD NO. 14 JJ1020 / 15 JJ1020 / 16 JJ1020 LAB NO. 10/83-265 DATE COMPLETED 11/1/83

NAME OR FIRM Jameco

ADDRESS OR LOCATION Wyand. Ave, Wyandh

POINT OF COLLECTION Well point

REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l	X	COPPER	.02 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		X	IRON	.1
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
MBAS				X	CHROMIUM-TOT	<.02
COD				X	NICKEL	<.1
TOC				X	ZINC	<.1
				X	LEAD	<.2
				X	CADMIUM	<.02
NITRATE-N				X	SILVER	<.02
NITRITE				X	CHROMIUM-+6	
AMMONIA-N						
TKN	.1	pH (FIELD)				
Fluoride	<.5	TEMP. (FIELD)				

NO METHOD OF PRESERVATION ☐ HNO_3 TO pH <2 ☐ COOL 4° C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION		
1. COLLECTED BY	J Johnson	SCDHS	10/20/83 (DATE)	11 35 AM (TIME)
2. POSSESSION BY	J Johnson	SCDHS	10/20/83 11 35 AM (DATE - TIME) TO	10/20/83 12 15 (DATE - TIME)
3. POSSESSION BY			DATE - TIME TO	DATE - TIME
4. RECEIVED LAB BY			DATE	TIME
5. POSSESSION BY			DATE - TIME TO	DATE - TIME
6. POSSESSION BY			DATE - TIME TO	DATE - TIME

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(File Orig) 37

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247 2/1

ELD NO. 1JJ1020 LAB NO. 10/83-261 DATE COMPLETED 10/28/83

G. Mather

AME OR FIRM Jameco
ADDRESS OR LOCATION Wyandanch Ave, Wyandanch
OINT OF COLLECTION Sample Box
REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l	X	COPPER	6.6 Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		X	IRON	<.05
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
MBAS				X	CHROMIUM-TOT	.08
COD				X	NICKEL	2.4
TOC				X	ZINC	.8
				X	LEAD	<.2
				X	CADMIUM	<.02
NITRATE-N				X	SILVER	<.02
NITRITE				X	CHROMIUM-+6	—
AMMONIA-N						
TKN		pH (FIELD)	≅ 7			
		TEMP. (FIELD)				

NO METHOD OF PRESERVATION ☐ HNO_3 TO pH <2 ☐ COOL 4° C

CUSTODY OF SAMPLE

IRING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE HAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE MPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESEN-TIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE URING SHIPMENT.

	NAME	AFFILIATION	DATE – TIME	TO	DATE – TIME
COLLECTED BY	J Johnson	SCDHS	DATE 10/20/83		TIME 10:30 am
POSSESSION BY	J Johnson	SCDHS	10/20/83 10:30 AM	TO	10/20/83 12'
POSSESSION BY			DATE – TIME	TO	DATE – TIME
RECEIVED LAB BY	G.M		DATE 10/20 1pm		TIME
POSSESSION BY			DATE – TIME	TO	DATE – TIME

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SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

FIELD NO. 2D08/1B LAB NO. 8-84-187 DATE COMPLETED 8/30/84

NAME OR FIRM Jameco Ind. Inc.

ADDRESS OR LOCATION Wyandanch Ave. Wyandanch

POINT OF COLLECTION SPDES pool, B-11

REMARKS/INSTRUCTIONS

	TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
	pH (LAB)		TOTAL SOLIDS	Mg/l	X	COPPER	.5 Mg/l
	CHLORIDE	Mg/l	SUSPENDED SOLIDS		X	IRON	.2
	CYANIDE		DISSOLVED SOLIDS			MANGANESE	
X	MBAS	.2			X	CHROMIUM-TOT	.9
	COD				X	NICKEL	.6
	TOC				X	ZINC	.6
X	Floride	1.5			X	LEAD	<.2
					X	CADMIUM	<.02
	NITRATE-N					SILVER	
	NITRITE				X	CHROMIUM-+6	
	AMMONIA-N						
	TKN		pH (FIELD)	ph≅6			
			TEMP. (FIELD)				

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE		TIME
1. COLLECTED BY	David Obrey	SCDHS	Aug 16, 84		11:05
2. POSSESSION BY			DATE - TIME	TO	DATE - TIME
3. POSSESSION BY			DATE - TIME	TO	DATE - TIME
4. RECEIVED LAB BY	G. Mathew		8/16 12:00		TIME
5. POSSESSION BY			DATE - TIME	TO	DATE - TIME
6. POSSESSION BY			DATE - TIME	TO	DATE - TIME

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SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

FIELD NO. 1DO8/16 LAB NO. 8-84-186 DATE COMPLETED 8/30/84

NAME OR FIRM: Jameco Ind. Inc.

ADDRESS OR LOCATION: Wyandanch Ave. Wyandanch, N.Y.

POINT OF COLLECTION: SPDES, sample box inside Jamecos

REMARKS/INSTRUCTIONS: prior to addition of noncontact cooling water

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l	X	COPPER 1.0	6. Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS		X	IRON .6	.6
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
X MBAS	1.2			X	CHROMIUM-TOT 1.0	1.6x10
COD	4.5			X	NICKEL 2.0	7.
TOC				X	ZINC	4.
Floride	4.1			X	LEAD 0.05	.4
	STD 3.0			X	CADMIUM	<.02
NITRATE-N					SILVER	
NITRITE				X	CHROMIUM-+6	-
AMMONIA-N						
TKN		pH (FIELD)	pH=12			
		TEMP. (FIELD)				-

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4° C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION		
1. COLLECTED BY	David Obrey	SCDHS	Aug. 16, 84 DATE	10:40 AM TIME
2. POSSESSION BY			DATE - TIME	TO DATE - TIME
3. POSSESSION BY			DATE - TIME	TO DATE - TIME
4. RECEIVED LAB BY	G. Mather		8/16 1:00 DATE	TIME
5. POSSESSION BY			DATE - TIME	TO DATE - TIME
6. POSSESSION BY			DATE - TIME	TO DATE - TIME

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

FIELD NO. 3D08/18 LAB NO. 8-84-188 DATE COMPLETED 8/30/84

NAME OR FIRM Jameco Ind. Inc.

ADDRESS OR LOCATION Wyandanch Ave Wyandanch

POINT OF COLLECTION SPDES Pool C-2.

REMARKS/INSTRUCTIONS

TEST	RESULTS		TEST	RESULTS		TEST	RESULTS
pH (LAB)			TOTAL SOLIDS	Mg/l	X	COPPER	1.8 Mg/l
CHLORIDE	Mg/l		SUSPENDED SOLIDS		X	IRON	.8
CYANIDE			DISSOLVED SOLIDS			MANGANESE	
MBAS	.2				X	CHROMIUM-TOT	2.6
COD					X	NICKEL	2.
TOC					X	ZINC	1.1
Floride	1.3				X	LEAD	<.2
					X	CADMIUM	<.02
NITRATE-N						SILVER	—
NITRITE					X	CHROMIUM-+6	
AMMONIA-N							
TKN			pH (FIELD)	ph=6			
			TEMP. (FIELD)				

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE		TIME
1. COLLECTED BY	David Obrig	SCDHS	Aug 16 84		11:20 am
. POSSESSION BY			DATE - TIME	TO	DATE - TIME
. POSSESSION BY			DATE - TIME	TO	DATE - TIME
RECEIVED LAB BY	G. Mathew		8/16 12:00		
. POSSESSION BY			DATE - TIME	TO	DATE - TIME
POSSESSION BY			DATE - TIME	TO	DATE - TIME

concentrations in ppm!

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TABLE I

Upgradient

Site #1

Depth from Grade (ft.)	1,1,2 Trichloroethylene
20'	<5
30'	<5
40'	18
50'	56

Site #2

Depth from Grade (ft.)	1,1,1 Trichloroethane	1,1,2 Trichloroethylene
15	577	42
20	237	6
25	482	<5
30	426	<5

Site A-2

Depth from Grade (ft.)	1,1,1 Trichloroethane	Tetrachloroethane
20	45	908
30	55	318
40	8	18
50	18	203

Site C-1

Depth from Grade (ft.)	1,1,1 Trichloroethane
20	226
30	34
40	26

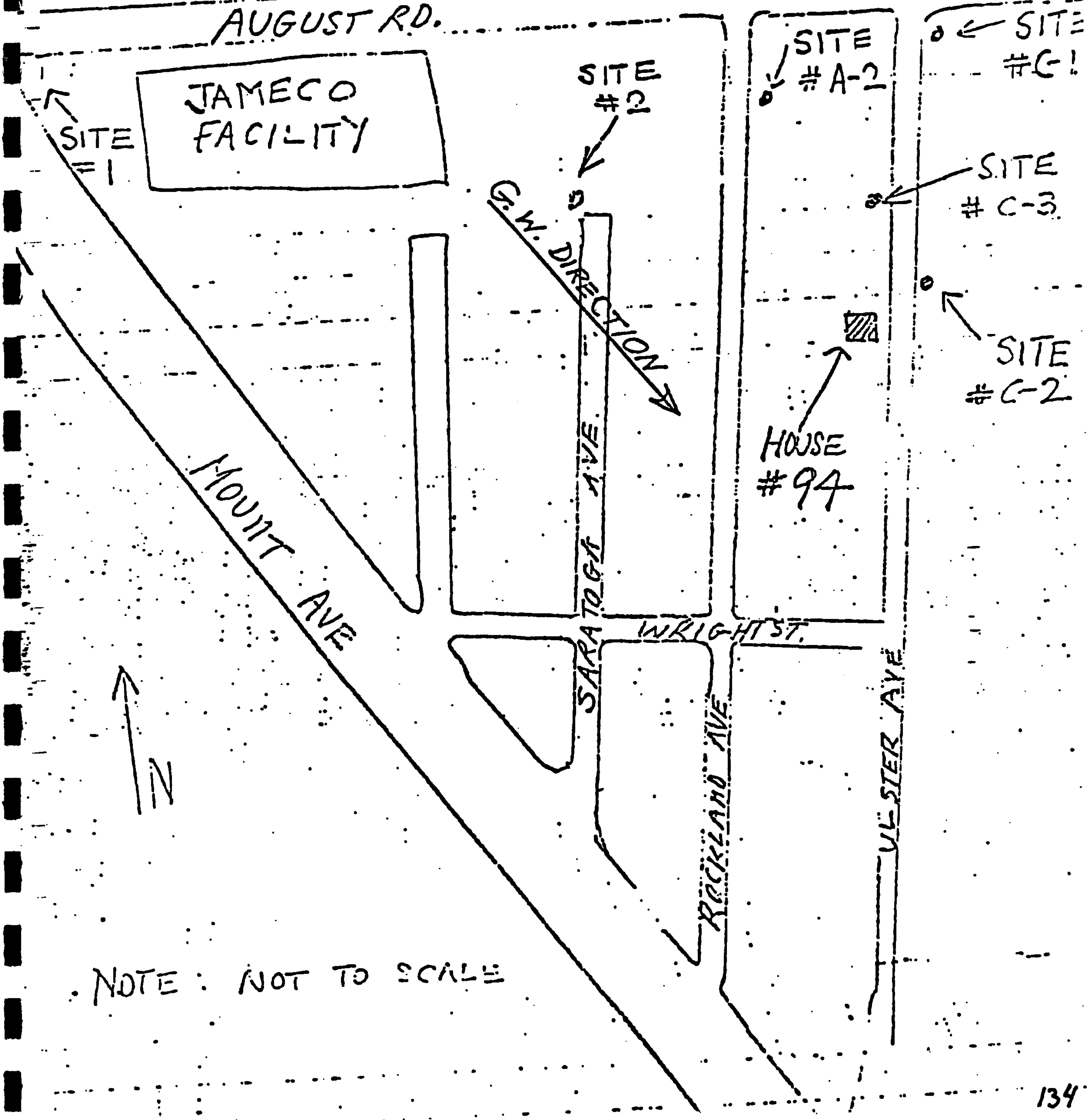
Site C-2

Depth from Grade (ft.)	1,1,1 Trichloroethane	Trtrachloroethane
20	15	28
30	40	320
40	24	505
50	9	32

Site C-3

Depth from Grade (ft.)	1,1,1 Trichloroethane	Tetrachloroethylene
20	73	1430
30	22	49
40	9	2
50	<3	<2

ULSTER AVE INVESTIGATION



NOTE: NOT TO SCALE

RECEIVED MAY 0 7 1984

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pas

PRINCETON AQUA SCIENCE

789 Jersey Avenue • P.O. Box 151 • New Brunswick, New Jersey 08902 • Telephone (201) 846-8800

April 30, 1984

Mr. Arnold Fleming, P.E.
Allee, King, Rosen & Fleming
114 East 32nd Street
New York, New York 10016

Dear Mr. Fleming:

Analysis of the soil samples received April 12, 1984 has been completed. The results are presented in the attached tables.

The determinations were performed in accordance with EPA/NJDEP Approved Methodology.

An invoice is enclosed for the analysis. If you have any questions, please feel free to contact me.

Very truly yours,

PRINCETON AQUA SCIENCE

Thomas Jrenni for

Daniel Chen, Ph.D., P.E.
Laboratory Manager

DC/mjs
Enclosure
#5580

pas

PRINCETON AQUA SCIENCE

789 Jersey Avenue • P.O. Box 151 • New Brunswick, New Jersey 08902 • Telephone (201) 846-8800

Company Allee, King, Rosen & Fleming
Address 114 East 32nd Street
City New York State NY Zip 10016
To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 5, Composite 3 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	2,800	<0.02
Copper	1,980	0.093
Nickel	1,180	0.455

Consulting Environmental Scientists & Engineers

pas

PRINCETON AQUA SCIENCE

789 Jersey Avenue • P.O. Box 151 • New Brunswick, New Jersey 08902 • Telephone (201) 846-8800

Company Allee, King, Rosen & Fleming
Address 114 East 32nd Street
City New York State NY Zip 10016
To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 5, Compsoite 3 ft (No Sludge)

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	0.02	<0.007
Chromium	480	<0.02
Copper	380	0.053
Nickel	240	0.1

pas

PRINCETON AQUA SCIENCE

789 Jersey Avenue • P.O. Box 151 • New Brunswick, New Jersey 08902 • Telephone (201) 846-8800

Company Allee, King, Rosen & Fleming
Address 114 East 32nd Street
City New York State NY Zip 10016
To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 5, Composite 7 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	1,900	<0.02
Copper	1,280	0.018
Nickel	250	0.089

PRINCETON AQUA SCIENCE

789 Jersey Avenue • P.O. Box 151 • New Brunswick, New Jersey 08902 • Telephone (201) 846-8800

Company Allee, King, Rosen & Fleming
Address 114 East 32nd Street
City New York State NY Zip 10016
To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Sludge Sample

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.04	<0.007
Chromium	16,000	<0.02
Copper	10,600	0.048
Nickel	5,800	1.14

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Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 1, 24 Composite 7 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	0.038	<0.007
Chromium	48	<0.02
Copper	32	0.019
Nickel	53	0.017

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Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 1, 4 Composite 5 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	0.06	<0.007
Chromium	30	<0.02
Copper	29	0.027
Nickel	62	0.036

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Job #: 5580
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Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 1, 29 Composite 3 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	0.055	<0.007
Chromium	140	<0.02
Copper	87	0.028
Nickel	39	0.019

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 2, Composite 7 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	0.031	<0.007
Chromium	34	<0.02
Copper	98	0.021
Nickel	55	0.06

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 2, Composite 5 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	43	<0.02
Copper	130	0.019
Nickel	380	0.15

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 2, Composite 3 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	160	<0.02
Copper	120	0.033
Nickel	105	0.064

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 3, Composite 3 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	0.039	<0.007
Chromium	390	0.047
Copper	600	0.076
Nickel	240	0.084

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 3, Composite 5 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	200	<0.02
Copper	165	0.019
Nickel	88	0.026

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City: New York State: NY Zip: 10016
To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 3, Composite 7 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	290	<0.02
Copper	150	0.027
Nickel	80	0.019

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 4, Composite 3 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.06	<0.007
Chromium	450	<0.02
Copper	480	0.058
Nickel	180	0.034

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To Attn. of: Mr. Arnold Fleming, P.E.

Job #: 5580
Date: 4/30/84
Auth.:
Lot #: 4677
Invoice #: 8638
Sample Date: 4/12/84
N.J. Lab Certification ID# 12064

REPORT OF ANALYSIS

Trench 4, Composite 5 ft.

	Dry Weight (mg/kg)	E.P. Toxicity Leachate (mg/l)
Hexavalent Chromium	<0.02	<0.007
Chromium	85	0.047
Copper	68	0.043
Nickel	86	0.064

Analytical Data

FIELD

FIELD NO. 4 JHF 1-21

COL. BY John H Finkenberg
NAME, NOT INITIALS

DATE COL. 21 JAN 81

TIME COL. 11 AM

LABORATORY

LAB NO. 1-81-65

TYPE SAMPLE IND-P.W.

DATE REC'VD. 1/21

TIME REC'VD. 12:30 PM

DATE COMPLETED 1/20/81

EXC. Cr+6

FILE

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

NAME OR FIRM JAMCCO INDUSTRIES

ADDRESS OR LOCATION 248 WYANDANCH AVE, WYANDANCH 11798

POINT OF COLLECTION EFFLUENT AT WEIR PRIOR TO DISCHARGE

REMARKS/INSTRUCTIONS

TEST	RESULT	TEST	RESULT mg./liter	TEST	RESULT mg./liter
CONDUCT	umho	NITRATE-N		✓ COPPER	2.0
✓ pH	9.7	NITRITE-N		✓ IRON	.1
TEST	RESULT mg./liter	AMMONIA-N		MANGANESE	
ph. ALKALINITY		TKN		✓ CHROMIUM	2.3
T. ALKALINITY		O-PO_4-P		✓ NICKEL	2.2
CHLORIDE				✓ ZINC	.8
FLUORIDE				MAGNESIUM	-
CYANIDE		TOT. SOLIDS		CALCIUM	-
		SUS. SOLIDS		✓ LEAD	<.2
SULFATE		DISS. SOLIDS		✓ CADMIUM	<.02
MBAS				✓ SILVER	.06
C.O.D.				SODIUM	
T.O.C.				POTASSIUM	
				BARIUM	
		FIELD D.O.		✓ Cr+6	
		FIELD TEMP			
		FIELD pH			
		FIELD COND.	umho		

157 38-1

CHEMTECH
CONSULTING GROUP, INC. 360 West 11th Street / New York, New York 10014 (212) 255-2100

January 26, 1982

AKRF, Inc.
130 West 25th Street
New York, N.Y. 10001

Attn: Mr. Arnold Fleming

PROJ. NO.: 12110

REF.: 27 Soil Samples - Jameco

LABORATORY REPORT

TEST \ SAMPLE DESCRIPTION		Nickel	Chromium (Total)	Chromium (Hex)	Copper
B-1	Serial #1	7.0	10.	<0.2	10.
B-1	S #2	8.1	14.	<0.2	12.
B-1	S #3	48.	92.	<0.2	290.
B-1	S #4	42.	100.	<0.2	76.
B-1	SS #5	57.	130.	<0.2	93.
B-1	SS #6	44.	200.	<0.2	76.
B-1	SS #7	34.	100.	<0.2	37.
B-2	S #1	8.0	14.	<0.2	13.
B-2	S #2	170.	240.	<0.2	170.
B-2	S #3	110.	39.	<0.2	32.
B-2	SS #4	130.	330.	<0.2	260.
B-2	SS #5	58.	230.	<0.2	77.

REMARKS: All values are in ppm (mg/kg) based on the weight of the sample as received.

Hexavalent chromium determined on aqueous extract, other metals on acid extract.

Alan Schoffman

Alan Schoffman, Ph.D.
Director, Analytical Services

CHEMTECH
CONSULTING GROUP, INC. 360 West 11th Street / New York, New York 10014 (212) 255-2100

January 26, 1982

AKRF, Inc.
130 West 25th Street
New York, N.Y. 10001

Attn: Mr. Arnold Fleming

PROJ. NO.: 12110

REF.: 27 soil samples - Jameco

LABORATORY REPORT

TEST \ SAMPLE DESCRIPTION		Nickel	Chromium (Total)	Chromium (Hex)	Copper
B-3	SS #1	560.	1340.	<0.2	920.
B-3	SS #2	77.	150.	<0.2	98.
B-3	SS #3A	500.	1460.	<0.2	960.
B-3	SS #3B	110.	200.	<0.2	79.
B-3	SS #4	5.8	35.	<0.2	38.
B-4	SS #1	5.8	7.5	<0.2	3.6
B-4	SS #2	4.1	4.0	<0.2	2.0
B-4	SS #3	6.6	5.9	<0.2	2.8
B-4	SS #4	12.	8.1	<0.2	4.4
B-5	SS #1	170.	26.	<0.2	22.
B-5	SS #2	59.	71.	<0.2	39.
B-5	SS #3A	75.	25.	<0.2	29.
B-5	SS #3B	99.	340.	<0.2	170.
BACKGROUND BORING B-6	SS #1	3.0	3.8	<0.2	2.1
B-7	SS #1	34.	71.	<0.2	150.

REMARKS:

Alan Schoffman

Alan Schoffman, Ph.D.
Director, Analytical Services

CHEMTECH
CONSULTING GROUP INC. 360 West 11th Street / New York, New York 10014 (212) 255-2100

January 4, 1982

AKRF, Inc.
130 W. 25th Street
New York, N.Y. 10001

Attn: Mr. Fleming

PROJ. NO.: 12109-1

REF.: Wyandanch L.I.
Water Samples

LABORATORY REPORT

TEST \ SAMPLE DESCRIPTION	B-1	B-2	Hole #3	Hole #4
Nickel mg/l	6.8	3.4	0.28	0.41
Total Chromium mg/l	<0.02	<0.02	<0.02	<0.02
Hexavalent Chromium mg/l	<0.02	<0.02	<0.02	<0.02
Copper mg/l	0.57	0.15	0.25	0.07
Date samples received:	12/30/81	12/30/81	12/30/81	12/30/81
Date samples taken:	12/30/81	12/30/81	12/30/81	12/30/81
[illegible] Analyzed?				

REMARKS:

Alan Schoffman
Alan Schoffman, Ph.D.
Director, Analytical Services

CHEMTECH
CONSULTING GROUP INC. 360 West 11th Street / New York, New York 10014 (212) 255-2100

January 4, 1982

AKRF, Inc.
130 W. 25th Street
New York, N.Y. 10001

Attn: Mr. Fleming

PROJ. NO.: 12109-1

REF.: Wyandanch, L.I.
Water Samples

LABORATORY REPORT

TEST / SAMPLE DESCRIPTION		Hole #5	Hole #6	Hole #7	
Nickel	mg/l	0.10	0.33	5.3	
Total Chromium	mg/l	<0.02	<0.02	<0.02	
Hexavalent Chromium	mg/l	<0.02	<0.02	<0.02	
Copper	mg/l	0.10	0.02	0.13	
Date samples received:		12/30/81	12/30/81	12/30/81	
Date samples taken:		12/30/81	12/30/81	12/30/81	

REMARKS:

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Alan Schoffman, Ph.D.
Director, Analytical Services

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HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S. C. Dept. of Health Services
225 Rabro Drive
Hauppauge, NY 11788

LAB. NO. 351452
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-4-DO-3-16
DATE SAMPLED 3/16/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY CL 99

VOLATILE HALOGENATED	ug/1
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
* {trans-1,2-dichloroethylene	
cis-1,2-dichloroethylene	
chloroform	
1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* {1,2-dichloropropane	
2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* {1,1,2-trichloroethane	
chlorodibromomethane	
cis-1,3-dichloropropene	
* {bromoform	
1,1,1,2-tetrachloroethane	
* {tetrachloroethylene	
1,1,2,2-tetrachloroethane	
* {vinylchloride	
dichlorodifluoro methane	
chlorobenzene	

VOLATILE NON-HALOGENATED	
benzene	<3
toluene	8
m-xylene	<3
p-xylene	<3
o-xylene	<3
ethyl benzene	<3

PESTICIDES	ug/1
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO. (S)

*Reported value represents total

4/8/83
DATE REPORTED

S. C. McLENDON, P.E., LAB DIRECTOR

156

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HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
225 Rabro Drive
Hauppauge, NY 11788

LAB. NO. 351451
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-3-DO-3-16
DATE SAMPLED 3/16/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY

VOLATILE HALOGENATED	ug/l
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
* trans-1,2-dichloroethylene	
* cis-1,2-dichloroethylene	
chloroform	
1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* 1,2-dichloropropane	
* 2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* 1,1,2-trichloroethane	
* chlorodibromomethane	
* cis-1,3-dichloropropene	
* bromoform	
* 1,1,1,2-tetrachloroethane	
* tetrachloroethylene	
* 1,1,2,2-tetrachloroethane	
* vinylchloride	
* dichlorodifluoro methane	
chlorobenzene	

VOLATILE NON-HALOGENATED	ug/l
benzene	<3
toluene	<3
m-xylene	<3
p-xylene	<3
o-xylene	<3
ethyl benzene	<3

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO.(S)

*Reported value represents total

4/8/83 DATE REPORTED

157

HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT 37

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 HORSEBLOCK PLACE
FARMINGVILLE NY 11738

LAB. NO. 351449
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-3-DO-3-16 JAM C-10
DATE SAMPLED 3/16/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY CL 99

VOLATILE HALOGENATED	ug/l
methylene chloride	180
1,1-dichloroethylene	<5
1,1-dichloroethane	<5
* trans-1,2-dichloroethylene	<5
* cis-1,2-dichloroethylene	<5
chloroform	10
1,1,2-trichlorotrifluoroethane	<5
1,2-dichloroethane	<5
1,1,1-trichloroethane	<20
carbon tetrachloride	<5
bromodichloromethane	<5
* 1,2-dichloropropane	<5
* 2,3-dichloropropene	<5
trans-1,3-dichloropropene	<5
trichloroethylene	85
* 1,1,2-trichloroethane	<5
* chlorodibromomethane	<5
* cis-1,3-dichloropropene	<5
* bromoform	<5
* 1,1,1,2-tetrachloroethane	<5
* tetrachloroethylene	1,400
* 1,1,2,2-tetrachloroethane	
* vinylchloride	<5
* dichlorodifluoro methane	<5
* chlorobenzene	<5

VOLATILE NON-HALOGENATED	
benzene	
toluene	
* m-xylene	
* p-xylene	
o-xylene	

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO. (S)

*Reported value represents total

RECEIVED APR 4 1983 SUFFOLK COUNTY DEPT. HEALTH SERVICES

3/21/83 DATE REPORTED

S.C. McLENDON, P.E. LAB DIRECTOR

HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 HORSEBLOCK PLACE
FARMINGVILLE NY 11738

LAB. NO. 351450
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-4-DO-3-16 JAM - FILTER
DATE SAMPLED 3/16/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY CL 99

VOLATILE HALOGENATED	ug/l
methylene chloride	62
1,1-dichloroethylene	<5
1,1-dichloroethane	<5
* trans-1,2-dichloroethylene	<5
* cis-1,2-dichloroethylene	7
chloroform	47
1,1,2-trichlorotrifluoroethane	<5
1,2-dichloroethane	<5
1,1,1-trichloroethane	<5
carbon tetrachloride	<5
bromodichloromethane	<5
* 1,2-dichloropropane	<5
* 2,3-dichloropropene	<5
trans-1,3-dichloropropene	<5
trichloroethylene	390
* 1,1,2-trichloroethane	<5
* chlorodibromomethane	<5
* cis-1,3-dichloropropene	<5
* bromoform	<5
* 1,1,1,2-tetrachloroethane	<5
* tetrachloroethylene	860
* 1,1,2,2-tetrachloroethane	
* vinylchloride	<5
* dichlorodifluoro methane	<5
chlorobenzene	<5

VOLATILE NON-HALOGENATED	
benzene	
toluene	
* m-xylene	
* p-xylene	
o-xylene	

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO.(S)

*Reported value represents total

RECEIVED
APR 4 1983
SUFFOLK COUNTY DEPT. HEALTH SERVICES

3/21/83 DATE REPORTED

S.C. McLENDON, P.E., LAB DIRECTOR

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE 37

16-247: 2/82

FIELD NO. 1DO 3-16 LAB NO. 3-83-182 DATE COMPLETED 3/23/83 [illegible]

NAME OR FIRM JAMECO IND.

ADDRESS OR LOCATION WYANDANCH AVE. WYANDANCH

POINT OF COLLECTION SPDES DISCHARGE POOL, #C-10, SOUTH SIDE

REMARKS/INSTRUCTIONS JAMECO.

TEST	RESULTS		TEST.	RESULTS		TEST	RESULTS Mg/l
pH (LAB)			TOTAL SOLIDS	Mg/l	X	COPPER	.1
CHLORIDE	Mg/l		SUSPENDED SOLIDS		X	IRON	.2
CYANIDE			DISSOLVED SOLIDS			MANGANESE	
MBAS					X	CHROMIUM-TOT	.04
COD					X	NICKEL	.4
TOC						ZINC	
					X	LEAD	<.2
					X	CADMIUM	<.02
						SILVER	
NITRATE-N						CHROMIUM-+6	
NITRITE							
AMMONIA-N							
TKN			pH (FIELD)	ph 7.8			
			TEMP. (FIELD)				

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE - TIME		DATE - TIME
1. COLLECTED BY	David Oberg	SCDHS	16MAR83 (DATE)		9:20 AM (TIME)
2. POSSESSION BY			DATE - TIME	TO	DATE - TIME
3. POSSESSION BY			DATE - TIME	TO	DATE - TIME
4. RECEIVED LAB BY	G.M.		3/16 12:00 (DATE)		TIME
5. POSSESSION BY			DATE - TIME	TO	DATE - TIME
6. POSSESSION BY			DATE - TIME	TO	DATE - TIME

SUFFOLK COUNTY HEALTH SERVICES LABORATORY
CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

FIELD NO. 2 DO3-16 LAB NO. 3-83-183 DATE COMPLETED 3/23/83

NAME OR FIRM: JAMECO IND.

ADDRESS OR LOCATION: WYANDANCH AVE. WYANDANCH

POINT OF COLLECTION: FILTER BOX, PRIOR TO DISCHARGE +

REMARKS/INSTRUCTIONS: INTRO OF COOLING WATER.

TEST	RESULTS		TEST	RESULTS		TEST	RESULTS
pH (LAB)			TOTAL SOLIDS	Mg/l	X	COPPER	.3 Mg/l
CHLORIDE	Mg/l		SUSPENDED SOLIDS		X	IRON	.1
CYANIDE			DISSOLVED SOLIDS			MANGANESE	
MBAS					X	CHROMIUM-TOT	.2
COD					X	NICKEL	1.2
TOC						ZINC	
					X	LEAD	<.2
					X	CADMIUM	<.02
NITRATE-N						SILVER	
NITRITE						CHROMIUM-+6	
AMMONIA-N							
TKN			pH (FIELD)	ph ≅ 5			
			TEMP. (FIELD)				

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE	TIME
COLLECTED BY	David Obery	SCDHS	16 MAR 83	9 35 AM
POSSESSION BY			DATE - TIME	TO DATE - TIME
POSSESSION BY			DATE - TIME	TO DATE - TIME
RECEIVED LAB BY	G.M		3/16 12.00	
POSSESSION BY			DATE - TIME	TO DATE - TIME
POSSESSION BY			DATE - TIME	TO DATE - TIME

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HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT 37

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

LAB. NO. 352493
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-6-DO-4-21
DATE SAMPLED 4/21/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY DO 99

VOLATILE HALOGENATED	ug/l
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
* trans-1,2-dichloroethylene	
* cis-1,2-dichloroethylene	
chloroform	
1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* 1,2-dichloropropane	
* 2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* 1,1,2-trichloroethane	
* chlorodibromomethane	
* cis-1,3-dichloropropene	
* bromoform	
* 1,1,1,2-tetrachloroethane	
* tetrachloroethylene	
* 1,1,2,2-tetrachloroethane	
* vinylchloride	
* dichlorodifluoro methane	
chlorobenzene	

VOLATILE NON-HALOGENATED	ug/l
benzene	≤3
toluene	≤3
m-xylene	≤3
p-xylene	≤3
o-xylene	≤3
ethylbenzene	≤3

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO.(S)

*Reported value represents total

RECEIVED
JUN 2? 1983
SUFFOLK COUNTY DEPT. HEALTH SERVICES

5/10/83 DATE REPORTED

S.C. McLendon, P.E. LAB DIRECTOR

162

37

HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

LAB. NO. 352492
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-5-DO-421
DATE SAMPLED 4/21/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY DO 99

VOLATILE HALOGENATED	ug/l
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
trans-1,2-dichloroethylene	
cis-1,2-dichloroethylene	
* chloroform	
* 1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* 1,2-dichloropropane	
* 2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* 1,1,2-trichloroethane	
* chlorodibromomethane	
* cis-1,3-dichloropropene	
* bromoform	
* 1,1,1,2-tetrachloroethane	
* tetrachloroethylene	
* 1,1,2,2-tetrachloroethane	

VOLATILE NON-HALOGENATED	
benzene	<3
toluene	<3
m-xylene	<3
p-xylene	<3
o-xylene	<3
ethylbenzene	<30

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO.(S)

*Reported value represents total

RECEIVED
JUN .. 1983
SUFFOLK COUNTY DEPT. HEALTH SERVICES

5/10/83 DATE REPORTED

S.C. McLENDON, P.E., LAB DIRECTOR

163

HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

LAB. NO. 352494
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-7-DO-4-21
DATE SAMPLED 4/21/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY DO 99

VOLATILE HALOGENATED	ug/l
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
trans-1,2-dichloroethylene	
cis-1,2-dichloroethylene	
* chloroform	
* 1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* 1,2-dichloropropane	
* 2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* 1,1,2-trichloroethane	
* chlorodibromomethane	
* cis-1,3-dichloropropene	
* bromoform	
* 1,1,1,2-tetrachloroethane	
* tetrachloroethylene	
* 1,1,2,2-tetrachloroethane	

VOLATILE NON-HALOGENATED	ug/l
benzene	<3
toluene	<3
m-xylene	<3
p-xylene	<3
o-xylene	<3
ethylbenzene	<3

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	ug/l
2,4-D	
2,4,5-TP (silvex)	

OTHERS

*Reported value represents total

RUN NO.(S)

RECEIVED
JUN 13 1983
SUFFOLK COUNTY DEPT. HEALTH SERVICES

5/10/83 DATE REPORTED

S.C. McLENDON, P.E., LAB DIRECTOR

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HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

LAB. NO. 352488
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-3-DO-4-21

DATE SAMPLED 4/21/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY CL 99

VOLATILE HALOGENATED	ug/l
methylene chloride	< 3
1,1-dichloroethylene	< 3
1,1-dichloroethane	< 3
* trans-1,2-dichloroethylene	< 3
* cis-1,2-dichloroethylene	< 3
chloroform	43
1,1,2-trichlorotrifluoroethane	< 3
1,2-dichloroethane	< 3
1,1,1-trichloroethane	< 3
carbon tetrachloride	< 3
bromodichloromethane	< 3
* 1,2-dichloropropane	< 3
* 2,3-dichloropropene	< 3
trans-1,3-dichloropropene	< 3
trichloroethylene	51
* 1,1,2-trichloroethane	< 3
* chlorodibromomethane	< 3
* cis-1,3-dichloropropene	< 3
* bromoform	< 3
* 1,1,1,2-tetrachloroethane	< 3
* tetrachloroethylene	300
* 1,1,2,2-tetrachloroethane	
* vinylchloride	< 3
* dichlorodifluoro methane	< 3
* chlorobenzene	< 3

VOLATILE NON-HALOGENATED	ug/l
benzene	
toluene	
* m-xylene	
* p-xylene	
o-xylene	

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS	

RUN NO. (S

RECEIVED
JUN 3 1983
SUFFOLK COUNTY DEPT.
HEALTH SERVICES

*Reported value represents total

4/28/83 DATE REPORTED

LAB DIRECTOR

165

HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

ok file
D. Obry

LAB. NO. 352491
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-1-DO-4-21
DATE SAMPLED 4/21/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY DO 99

VOLATILE HALOGENATED	ug/l
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
* trans-1,2-dichloroethylene	
* cis-1,2-dichloroethylene	
chloroform	
1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* 1,2-dichloropropane	
* 2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* 1,1,2-trichloroethane	
* chlorodibromomethane	
* cis-1,3-dichloropropene	
* bromoform	
* 1,1,1,2-tetrachloroethane	
* tetrachloroethylene	
* 1,1,2,2-tetrachloroethane	
* vinylchloride	
* dichlorodifluoro methane	
chlorobenzene	

VOLATILE NON-HALOGENATED	ug/l
benzene	<3
toluene	<3
m-xylene	<3
p-xylene	<3
o-xylene	<3
ethylbenzene	<3

PESTICIDES	ug/l
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS	
	-
	-
	-

RUN NO.(S)

RECEIVED
JUN 1983
SUFFOLK COUNTY DEPT. HEALTH SERVICES

*Reported value represents total

5/9/83 DATE REPORTED

S.C. McLENDON, P.E., LAB DIRECTOR

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HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

LAB. NO. 352487
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-1-DO-4-21
DATE SAMPLED 4/21/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY CL 99

VOLATILE HALOGENATED	ug/1
methylene chloride	< 3
1,1-dichloroethylene	< 3
1,1-dichloroethane	< 3
* trans-1,2-dichloroethylene	< 3
* cis-1,2-dichloroethylene	< 3
chloroform	< 3
1,1,2-trichlorotrifluoroethane	< 3
1,2-dichloroethane	< 3
1,1,1-trichloroethane	< 12
carbon tetrachloride	< 3
bromodichloromethane	< 3
* 1,2-dichloropropane	< 3
* 2,3-dichloropropene	< 3
trans-1,3-dichloropropene	< 3
trichloroethylene	< 3
* 1,1,2-trichloroethane	< 3
* chlorodibromomethane	< 3
* cis-1,3-dichloropropene	< 3
* bromoform	< 3
* 1,1,1,2-tetrachloroethane	< 3
* tetrachloroethylene	700
* 1,1,2,2-tetrachloroethane	
* vinylchloride	< 3
* dichlorodifluoro methane	< 3
* chlorobenzene	< 3

VOLATILE NON-HALOGENATED	
benzene	
toluene	
* m-xylene	
* p-xylene	
o-xylene	

PESTICIDES	ug/1
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

RUN NO.(S)

RECEIVED
JUN 3 1983
SUFFOLK COUNTY DEPT. HEALTH SERVICES

*Reported value represents total

4/28/83 DATE REPORTED

LAB DIRECTOR

167

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SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247-2/82

FIELD NO. 2DO3-16 LAB NO. 3-83-183 DATE COMPLETED 3/23/83 4/8/83

NAME OR FIRM JAMECO IND.

ADDRESS OR LOCATION WYANDANCH AVE. WYANDANCH

POINT OF COLLECTION FILTER BOX, PRIOR TO DISCHARGE +

REMARKS/INSTRUCTIONS INTRO OF COOLING WATER.

TEST	RESULTS		TEST	RESULTS		TEST	RESULTS
pH (LAB)			TOTAL SOLIDS	Mg/l	X	COPPER	Mg/l .3
CHLORIDE	Mg/l		SUSPENDED SOLIDS		X	IRON	.1
CYANIDE			DISSOLVED SOLIDS			MANGANESE	
MBAS					X	CHROMIUM-TOT	.2
COD					X	NICKEL	1.2
TOC						ZINC	
					X	LEAD	<.2
					X	CADMIUM	<.02
NITRATE-N				4/8/83	X	SILVER	<.02
NITRITE						CHROMIUM-+6	
AMMONIA-N							
TKN			pH (FIELD)	ph 5			
			TEMP. (FIELD)				

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE		TIME
1. COLLECTED BY	David Oberg	SCDHS	16 MAR 83		9:35 AM
2. POSSESSION BY			DATE - TIME	TO	DATE - TIME
3. POSSESSION BY			DATE - TIME	TO	DATE - TIME
4. RECEIVED LAB BY	G.M.		3/16 12:00		TIME
. POSSESSION BY			DATE - TIME	TO	DATE - TIME
5. POSSESSION BY			DATE - TIME	TO	DATE - TIME

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LAB NO. 1 W - - 3 01?
REC'D 4-21-83 RYI A
FIELD NO. 1 DJ 4-21

X1 / 8 5

DATE COMPLETED 5-10-83
REPORTED BY JH

37

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF INDUSTRIAL WASTE

Name Jamco Ind.

Location Wyandanch Ave. Wyandanch.

Point of Collection petcock on surge tank from well.

Remarks: ~~[illegible]~~ THE WORKS

Compound	ppb	Compound	ppb
Methylene Chloride	-	Benzene	<10
Freon 113	<4	Toluene	<10
Chloroform	<5	o-Xylene	<10
1,1,1 Trichloroethane	14	m,p-Xylene	<10
Carbon Tetrachloride	<1	Xylenes	-
1,1,2 Trichloroethylene	<5	Chlorobenzene	<12
Chlorodibromomethane	<2	Ethylbenzene	<10
Tetrachloroethylene	2800	Chlorotoluenes	<12
Bromoform	<5	1,3,5 Trimethylbenzene	<10
Bromodichloromethane	<3	1,2,4 Trimethylbenzene	<10
1,1,2 Trichloroethane	<5	m,p Dichlorobenzene	<14
s-Tetrachloroethane	<3	o-Dichlorobenzene	<14
n-Decane	<40	p-Diethylbenzene	<10
Undecane	<40	p-Ethyltoluene	<10
Dodecane	<40	1,2,4,5 Tetramethylbenzene	<10
n-Tridecane	<40	Octane	<40
Bromobenzene	<16	n-Nonane	<40

During transport of the sample from collection point to laboratory, the chain of custody must not be broken. The sample should be delivered by the sample collector or a designated representative who will sign for the receipt, integrity and transfer of the sample during shipment.

	SIGNATURE	AFFILIATION	DATE	TIME
1. Collected by	DJG	SCDHS	21 April 83	2:05 pm
2. Transfered to	Francis J. Ozzendola	SCDHS-PHL	4-21-83	3:30PM
3. Transfered to				
4. Transfered to				

37

SUFFOLK C(NTY HEALTH SERVICES L..BORATORY
CHEMICAL EXAMINATION OF WATER,SEWAGE,INDUSTRIAL WASTE

18-247: 2/82

FIELD NO. 4 DO 4-21 LAB NO. 5-83-26 DATE COMPLETED 5/11/83

NAME OR FIRM Jameco Ind. Inc.
ADDRESS OR LOCATION Wyandanch Ave. Wyandanch
POINT OF COLLECTION (Pool C-10)
REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH(LAB)		TOTAL SOLIDS	Mg/l		COPPER	Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS			IRON	
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
MBAS				X	CHROMIUM-TOT	.06
COD					NICKEL	
TOC					ZINC	
				X	LEAD	<.2
				X	CADMIUM	<.02
NITRATE-N					SILVER	—
NITRITE				X	CHROMIUM-+6	
AMMONIA-N						
TKN		pH (FIELD)				
		TEMP. (FIELD)				

METHOD OF PRESERVATION ☐ HNO_3 TO pH <2 ☐ COOL 4°C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE - TIME	TO	DATE - TIME
1. COLLECTED BY	David Oberg	SCDHS	21 Apr 83		11⁰⁰ AM
2. POSSESSION BY	David Oberg	SCDHS	21 Apr 83 11⁰⁰	TO	21 Apr 83 2²⁰
3. POSSESSION BY				TO	
4. RECEIVED LAB BY	Bm		5/2 PM		
5. POSSESSION BY				TO	
6. POSSESSION BY				TO	

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S/

SU. FOLK CO NTY HEALTH SERVICES L BORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247: 2/82

FIELD NO. 2DO4-21 LAB NO. 5-83-25 DATE COMPLETED 5/11/83 Rei

NAME OR FIRM Jaweco Ind. Inc.

ADDRESS OR LOCATION Wyandanch Ave. Wyandanch.

POINT OF COLLECTION well, surge tank.

REMARKS/INSTRUCTIONS

TEST	RESULTS	TEST	RESULTS		TEST	RESULTS
pH (LAB)		TOTAL SOLIDS	Mg/l		COPPER	Mg/l
CHLORIDE	Mg/l	SUSPENDED SOLIDS			IRON	
CYANIDE		DISSOLVED SOLIDS			MANGANESE	
MBAS				X	CHROMIUM-TOT	<.02
COD				X	NICKEL	<.1
TOC					ZINC	
				X	LEAD	<.2
				X	CADMIUM	<.02
NITRATE-N					SILVER	
NITRITE					CHROMIUM-+6	
AMMONIA-N						
TKN		pH (FIELD)	ph≃4			
		TEMP. (FIELD)				

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4° C

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION			
1. COLLECTED BY	David Obrey	SCDHS	21 April 83 DATE		10:43 Am TIME
2. POSSESSION BY	David Obrey	SCDHS	21 April 83 - 10:43 Am DATE - TIME	TO	2 May 83 - 2 DATE - TIME
3. POSSESSION BY			DATE - TIME	TO	DATE - TIME
4. RECEIVED LAB BY	G.M		5/2 pm. DATE		TIME
5. POSSESSION BY			DATE - TIME	TO	DATE - TIME
6. POSSESSION BY			DATE - TIME	TO	DATE - TIME

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— ov 8 Chang a… 37

HOLZMACHER, McLENDON and MURRELL, P.C.
H2M CORP.
575 BROAD HOLLOW ROAD, MELVILLE, NEW YORK 11747
Tel. (516) 694-3040

LABORATORY REPORT

LAB ID 03

CLIENT NAME AND ADDRESS

S.C. Dept. of Health Services
15 Horseblock Place
Farmingville, NY 11738

LAB. NO. 352917
TYPE WATER Miscellaneous
SAMPLING PT. I.D. #R-3-DO-5-11
DATE SAMPLED 5/11/83
TIME SAMPLED
RUN TIME (WELL)
COLLECTED BY DO 99

VOLATILE HALOGENATED	ug/1
methylene chloride	
1,1-dichloroethylene	
1,1-dichloroethane	
trans-1,2-dichloroethylene	
cis-1,2-dichloroethylene	
* chloroform	
* 1,1,2-trichlorotrifluoroethane	
1,2-dichloroethane	
1,1,1-trichloroethane	
carbon tetrachloride	
bromodichloromethane	
* 1,2-dichloropropane	
* 2,3-dichloropropene	
trans-1,3-dichloropropene	
trichloroethylene	
* 1,1,2-trichloroethane	
* chlorodibromomethane	
* cis-1,3-dichloropropene	
* bromoform	
* 1,1,1,2-tetrachloroethane	
* tetrachloroethylene	
* 1,1,2,2-tetrachloroethane	

VOLATILE NON-HALOGENATED	
benzene	<3
toluene	<3
m-xylene	<3
p-xylene	<3
o-xylene	<3
ethylbenzene	<3

PESTICIDES	ug/1
lindane	
heptachlor	
aldrin	
heptachlor epoxide	
dieldrin	
endrin	
o,p'DDT	
p,p'DDT	
methoxychlor	
toxaphene	
chlordane	

HERBICIDES	
2,4-D	
2,4,5-TP (silvex)	

OTHERS

*Reported value represents total

RUN NO. (S)

RECEIVED JUN 21 1983 SUFFOLK COUNTY DEPT. HEALTH SERVICES

6/2/83 DATE REPORTED

S.C. McLENDON, P.E., LAB DIRECTOR

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REC'D 6-7-83 BY FJ
FIELD NO. 1 DO176

COMPLETED 6-1?-83
REVIEWED BY JH 37

FILE
JAMECO
DeCo

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF INDUSTRIAL WASTE

Name Sump- Wyandanch Ave
Location Wyandanch Ave, Wyandanch.
Point of Collection Eastside Sump.
Remarks: UHO ONLY

Compound	ppb	Compound	ppb
Methylene Chloride	—	Benzene	<10
Freon 113	<4	Toluene	<10
Chloroform	<5	o-Xylene	<10
1,1,1 Trichloroethane	<2	m,p-Xylene	<10
Carbon Tetrachloride	<1	Xylenes	—
1,1,2 Trichloroethylene	<5	Chlorobenzene	<12
Chlordibromomethane	<2	Ethylbenzene	<10
Tetrachloroethylene	<2	Chlorotoluenes	<12
Bromoform	<5	1,3,5 Trimethylbenzene	<10
Bromodichloromethane	<3	1,2,4 Trimethylbenzene	<10
1,1,2 Trichloroethane	<5	m,p Dichlorobenzene	<14
s-Tetrachloroethane	<2	o-Dichlorobenzene	<14
n-Decane	<40	p-Diethylbenzene	<10
Undecane	<40	p-Ethyltoluene	<10
Dodecane	<40	1,2,4,5 Tetramethylbenzene	<10
n-Tridecane	<40	Octane	<40
Bromobenzene	<16	n-Nonane	<40

During transport of the sample from collection point to laboratory, the chain of custody must not be broken. The sample should be delivered by the sample collector or a designated representative who will sign for the receipt, integrity and transfer of the sample during shipment.

	SIGNATURE	AFFILIATION	DATE	TIME
1. Collected by	D. C.	SCDHS	1 June 83	2:15 pm
2. Transfered to	Francis J Arcondola	SCDHS-PHL	June 1-83	4:15 PM
3. Transfered to				
4. Transfered to				

file - SC ... 37

SUFFOLK COUNTY HEALTH SERVICES LABORATORY

CHEMICAL EXAMINATION OF WATER, SEWAGE, INDUSTRIAL WASTE

18-247-2182

FIELD NO. 1D01-6 LAB NO. 6-83-28 DATE COMPLETED 6/9/83

NAME OR FIRM WYANDANCH AVE. - SUMP

ADDRESS OR LOCATION WYANDANCH AVE. WYANDANCH.

POINT OF COLLECTION SUMP - EAST SIDE.

REMARKS/INSTRUCTIONS

TEST	RESULTS		TEST	RESULTS		TEST	RESULTS
pH (LAB)			TOTAL SOLIDS	Mg/l		COPPER	Mg/l
CHLORIDE	Mg/l		SUSPENDED SOLIDS			IRON	
CYANIDE			DISSOLVED SOLIDS			MANGANESE	
MBAS					X	CHROMIUM-TOT	<.02
COD					X	NICKEL	<.1
TOC						ZINC	
					X	LEAD	<.2
					X	CADMIUM	<.02
NITRATE-N					X	SILVER	<.02
NITRITE						CHROMIUM-+6	-
AMMONIA-N							-
TKN			pH (FIELD)				
			TEMP. (FIELD)				-

METHOD OF PRESERVATION ☒ HNO_3 TO pH <2 ☐ COOL 4°C -

CUSTODY OF SAMPLE

DURING TRANSPORT OF THE SAMPLE FROM SAMPLING SITE TO LABORATORY, THE CHAIN OF CUSTODY MUST BE UNBROKEN. GENERALLY THIS WILL REQUIRE THAT THE SAMPLE BE DELIVERED BY THE SAMPLE COLLECTOR OR HIS DESIGNATED REPRESENTATIVE WHO WILL SIGN FOR THE RECEIPT, INTEGRITY AND TRANSFER OF THE SAMPLE DURING SHIPMENT.

	NAME	AFFILIATION	DATE	TIME
1. COLLECTED BY	David Oberg	SCDHS	1 JUNE 83	2^15 PM
. POSSESSION BY			DATE - TIME	TO DATE - TIME
. POSSESSION BY			DATE - TIME	TO DATE - TIME
. RECEIVED LAB BY	G. m		6/1 P.M.	
5. POSSESSION BY			DATE - TIME	TO DATE - TIME
. POSSESSION BY			DATE - TIME	TO DATE - TIME

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COUNTY OF SUFFOLK

37

PETER F. COHALAN
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

Date 5-9-83
SPDES NO. -
Lab. No. 351449
Field No. ID #R3 DO-3-16

Jameco Industries
248 Wyandanch Ave.
Wayandanch, NY 11798

Gentlemen:

On 16 March 1983 samples of industrial waste were taken from your (Industrial waste leaching pool) C-10

Upon analysis, the following parameters were found in concentrations above the maximum allowed in your SPDES Permit or in groundwater effluent standards:

1. Methylene chloride 180 ppb.
2. Trichloroethylene 85 ppb.
3. Tetrachloroethylene 1,400 ppb.
4.
5.
6.
7.
8.
9.
10.

Please be advised that these unsatisfactory conditions constitute violations of the N.Y.S. Environmental Conservation Law and/or the Suffolk County Sanitary Code. Please be further advised that the discharge of any water from an industrial process to the groundwater of Suffolk County without having first obtained a State Pollutant Discharge Elimination System (SPDES) Permit for that discharge is also a violation of the N.Y.S. E.C.L. and/or the Suffolk County Sanitary Code, Article 12.

If you do not already possess a valid SPDES Permit for the above discharge, then you should apply immediately through this office for said permit.

Since the above-noted violations may subject you to legal action, it is expected that these violations cease immediately. Violations of the Suffolk County Sanitary Code are subject to the imposition of a civil penalty of up to Five Hundred ($500) dollars per violation. E.C.L. violations are also subject to a civil penalty. A reinspection in the near future will determine your compliance in this matter.

Very truly yours,

John H. Finkenberg, Sr. Sanitarian
Environmental Pollution Control

1- Horseblock Pl.
Farmingville, NY 11738
(516) 451-4628

(SEE REVERSE SIDE FOR STANDARDS)

DATE COMPLETED 11-21-83
EXAMINED BY KH
37

NO. 1W-1-3038
D 10-20-83 By FP
FIELD NO. 9 JS10-20

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF INDUSTRIAL WASTE

Name Jamaica Ind. Inc.
Location Wyandanch Ave. Wyandanch
Point of Collection SPDES DISH. POOL # C-10
Remarks:

Compound	pbb
Methylene Chloride	<4
Freon 113	<5
Chloroform	6
1,1,1 Trichloroethane	<1
Carbon Tetrachloride	16
1,1,2 Trichloroethylene	<3
Bromodichloromethane	<5
1,1,2 Trichloroethane	<2
Chlorodibromomethane	240
Tetrachloroethylene	<5
Bromoform	<3
1,1,2,2 Tetrachloroethane	<40
Octane	<10
Styrene	<40
n-Nonane	<10
p-Ethyltoluene	<40
n-Decane	<40
n-Undecane	

Compound	ppb
Cis Dichloroethylene	<16
Benzene	<10
Toluene	<10
Chlorobenzene	<12
Ethylbenzene	<10
Xylene(s)	<10
Bromobenzene	<16
Chlorotoluene(s)	<12
1,3,5 Trimethylbenzene	<10
1,2,4 Trimethylbenzene	<10
m,p-Dichlorobenzene	<14
o-Dichlorobenzene	<14
p-Diethylbenzene	<10
1,2,4,5 Tetramethylbenzene	<10
1,2,4 Trichlorobenzene	<16
1,2,3 Trichlorobenzene	<18

SCDHS R3D03-16
Mar 16, 83
tet. 1,400 ppb
methylene chloride 180 ppb
trichloro 85 ppb

During transport of the sample from collection point to laboratory, the chain of custody must not be broken. The sample should be delivered by the sample collector or a designated representative who will sign for the receipt, integrity, and transfer of the sample during shipment.

	SIGNATURE	AFFILIATION	DATE	TIME
1. Collected by	Johnson	SCDHS	10/20/83	10:45
2. Transfered to	David Oberg	SCDHS	10/20/83	1:00 PM
3. Transfered to	Thomas A Amendola	SCDHS-PHL	10-20-83	2:00 PM

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federal register

Department of the Interior

Heritage Conservation and Recreation Service

National Register of Historic Places; Listing of Historic Properties

New York State Listings:

January 1, 1979 - December 31, 1979

***NOTE: Corrections follow listings

NEW YORK—Continued

Leeds vicinity. *SALISBURY MANOR*, NW of Leeds on NY 145/23, (06-19-79): 79/11/08 079 0002145
Windham. *CENTRE PRESBYTERIAN CHURCH*, Main and Church Sts, (9-7-79): 79-11-29 079 0005012

kings county

Brooklyn. *FLATLANDS DUTCH REFORMED CHURCH*, Kings Hwy. and E. 40th St, (8-30-79): 79-11-29 079 0005013

manhattan county

New York. *JEFFREY'S HOOK LIGHTHOUSE (HUDSON RIVER LIGHTHOUSES THEMATIC RESOURCES)*, Fort Washington Park, (05-29-79): 79/11/06 079 0002146

monroe county

Rochester. *EAST AVENUE HISTORIC DISTRICT*, Irregular pattern along East Ave. from Probert St. to Alexander St., (4-17-79): 79/07/19 079 0001688

montgomery county

Fort Plain vicinity. *FORT PLAIN CONSERVATION AREA*, (11-15-79): 80/01/10079 0006378

nassau county

Cove Neck. *ROOSEVELT, JAMES ALFRED, ESTATE*, 360 Cove Neck Rd., (5-17-79): 79/07/19 079 0001689
Glen Cove. *WOOLWORTH ESTATE*, 77 Crescent Beach Rd., (5-17-79): 79/07/19 079 0001690
Lattingtown. *ALDRED, JOHN E., ESTATE (ORMSTON)*, Lattingtown Rd, (8-3-79): 79-11-13 079 0004374
Millneck. *DODGE*, Frost Mill Rd., (7-22-79): 79/11/01079 0003312
Muttontown vicinity. *MOORE, BENJAMIN, ESTATE*, N of Muttontown on NY 25A, (5-14-79): 79/07/19 079 0001691
Oyster Bay. *ADAM-DERBY HOUSE*, 166 Lexington Ave., (5-17-79): 79/07/19 079 0001692
Oyster Bay vicinity. *PLANTING FIELDS ARBORETUM*, W of Oyster Bay on Planting Fields Rd., (1-23-79): 80/01/10079 0006775

new york county

New York. *DUNBAR APARTMENTS*, Bounded by 7th and 8th Aves. and W. 149th and 150th Sts., (3-29-79): 79/07/16 079 0001084
New York. *FLATIRON BUILDING*, 5th Ave. and Broadway St, (11-20-79): 80/01/10079 0006379
New York. *GREENWICH VILLAGE HISTORIC DISTRICT*, Roughly bounded by W. 13th St., St. Luke's Pl., University Pl., and Washington St., (06-19-79): 79/11/06 079 0002147
New York. *NORWOOD, ANDREW S., HOUSE CF*, 241 W. 14th St., (7-9-79): 79/11/01079 0003313
New York. *OTTENDORFER PUBLIC LIBRARY AND STUYVESANT POLYCLINIC HOSPITAL*, 135 and 137 2nd Ave., (7-22-79): 79/11/01079 0003314

oneida county

Boonville. *BOONVILLE HISTORIC DISTRICT*, Schuyler, Post, W. Main and Summit Sts, (11-16-79): 80/01/10079 0006380

Oriskany Falls. *FIRST CONGREGATION FREE CHURCH*, 177 N. Main St., (1-19-79): 011/80/ 079 0006776
Oriskany Falls. *FIRST CONGREGATIONAL FREE CHURCH*, 177 N. Main St., (1/19/79): 79/07/16 079 0000185

onondaga county

Delphi Falls. *DELPHI BAPTIST CHURCH*, Oran-Delphi Rd, (8-24-79): 79-11-29 079 0005014
Skaneateles. *SMITH, REUEL E., HOUSE*, 28 W. Lake St, (7-27-79) HABS: 79-11-13 079 0004375
Skaneateles vicinity. *COMMUNITY PLACE*, S of Skaneateles at 725 Sheldon Rd., (4-20-79): 79/07/19 079 0001693
Syracuse. *HAWLEY-GREEN STREET HISTORIC DISTRICT*, Green St. and Hawley Ave., (5-2-79): 79/07/19 079 0001694
Syracuse. *KING, POLASKI, HOUSE*, 2270 Valley Dr., (4-20-79): 79/07/19 079 0001695

ontario county

Clifton Springs. *CLIFTON SPRINGS SANITARIUM AND FOSTER COTTAGE*, 11 and 9 E. Main St., (4-6-79): 79/07/16 079 0001085

orange county

Vails Gate. *EDMONSTON HOUSE*, NY 94, (3-2-79): 79/07/13 079 0000002

orleans county

Albion. *ORLEANS COUNTY COURTHOUSE HISTORIC DISTRICT*, Courthouse Sq. and environs, (8-31-79): 79-11-29 079 0005015

oswego county

Pulaski vicinity. *SELKIRK LIGHTHOUSE*, W of Pulaski on Lake Rd., (3-30-79): 79/07/16 079 0001086

putnam county

Brewster. *OLD BREWSTER TOWN HALL*, Main St, (7-24-79): 79-11-13 079 0004376

queens county

New York. *CORNELL FARMHOUSE*, 73-50 Little Neck Pkwy, (7-24-79): 79-11-13 079 0004377

rensselaer county

MATHEWS, DAVID, HOUSE, (9-10-79): 79-11-29 079 0005016
Rensselaer. *BEVERWYCK MANOR (ST. ANTHONY-ON-HUDSON SEMINARY)*, Washington Ave, (8-3-79) HABS: 79-11-13 079 0004378
Rensselaer. *PATROON AGENT'S HOUSE AND OFFICE*, 15 Forbes Ave, (8-3-79): 79-11-13 079 0004379
Troy. *ST. PAUL'S EPISCOPAL CHURCH COMPLEX*, 58 3rd St, (9-7-79): 79-11-29 079 0005017
Troy. *WILLARD, EMMA, SCHOOL*, Pawling and Elmgrove Aves, (8-30-79): 79-11-29 079 0005018

rockland county

Stony Point. *STONY POINT LIGHTHOUSE (HUDSON RIVER LIGHTHOUSES THEMATIC RESOURCES)*, Stony Point Battlefield, (05-29-79): 79/11/06 079 0002148

saratoga county

Saratoga Springs. *BROADWAY HISTORIC DISTRICT*, Broadway, Washington and Rock Sts, (9-12-79): 79-11-29 079 0005019

schenectady county

Niskayuna. *NISKAYUNA REFORMED CHURCH*, 3041 Troy-Schenectady Rd., (4-16-79): 79/07/19 079 0001696

schoharie county

Gallupville. *GALLUPVILLE HOUSE*, Main St, (9-7-79): 79-11-30 079 0005020
Schoharie vicinity. *BECKER STONE HOUSE*, E of Schoharie on Murphy Rd, (11-20-79): 80/01/10079 0006383
Schoharie vicinity. *BECKER-WESTFALL HOUSE*, E of Schoharie on NY 443, (11-20-79): 80/01/10079 0006384

st. lawrence county

Potsdam. *MARKET STREET HISTORIC DISTRICT*, Market and Raymond Sts, (11-16-79): 80/01/10079 0006381
West Stockholm. *WEST STOCKHOLM HISTORIC DISTRICT*, W. Stockholm and Livingston Rds, (11-20-79): 80/01/10079 0006382

suffolk county

Commack. *CARLL, MARION, FARM*, 475 Commack Rd., (6-26-79): 79/11/01079 0003315
Lloyd Harbor. *FIELD, MARSHALL III, ESTATE*, Lloyd Harbor Rd., (4-30-79): 79/07/19 079 0001697
Montauk vicinity. *H.M.S. CULLODEN SHIPWRECK SITE*, N of Montauk, (3-5-79): 79/07/13 079 0000603

sullivan county

Grahamsville. *GRAHAMSVILLE HISTORIC DISTRICT*, NY 55, (12-6-79): 80/01/10079 0006385

tompkins county

Ithaca. *ITHACA POTTERY SITE*, (7-17-79): 79/11/01079 0003316
Ithaca. *STRAND THEATRE*, 310 E. State St., (2-22-79): 79/07/13 079 0000604
Ithaca vicinity. *ENFIELD FALLS MILL AND MILLER'S HOUSE*, SW of Ithaca in Robert H. Treman State Park, (2/5/79): 79/07/16 079 0000186
Ithaca vicinity. *ENFIELD FALLS MILLS AND MILLER'S HOUSE*, SW of Ithaca in Robert H. Treman State Park, (2-5-79): 80/01/10079 0006777

ulster county

Esopus. *ESOPUS MEADOWS LIGHTHOUSE (HUDSON RIVER LIGHTHOUSES THEMATIC RESOURCES)*, Spans Hudson River, (05-29-79): 79/11/06 079 0002149
Kingston. *COMMUNITY THEATER (BROADWAY THEATER)*, 601 Broadway, (7-22-79): 79/11/01079 0003317
Kingston. *KINGSTON/RONDOUT 2 LIGHTHOUSE (HUDSON RIVER LIGHTHOUSES THEMATIC RESOURCES)*, Hudson River and Rondout Creek, (05-29-79): 79/11/06 079 0002150
Kingston. *RONDOUT-WEST STRAND HISTORIC DISTRICT*, U.S. 9w, (8-24-79): 79-11-30 079 0005021
Saugerties. *SAUGERTIES LIGHTHOUSE (HUDSON RIVER LIGHTHOUSES THEMATIC RESOURCES)*, Hudson River at Esopus Creek, (05-29-79): 79/11/06 079 0002151
Woodstock vicinity. *BYRDCLIFFE HISTORIC DISTRICT*, W of Woodstock at Glasco Tpke. and Larks Nest Rd., (5-7-79): 79/07/19 079 0001698

federal register

Tuesday
February 3, 1981

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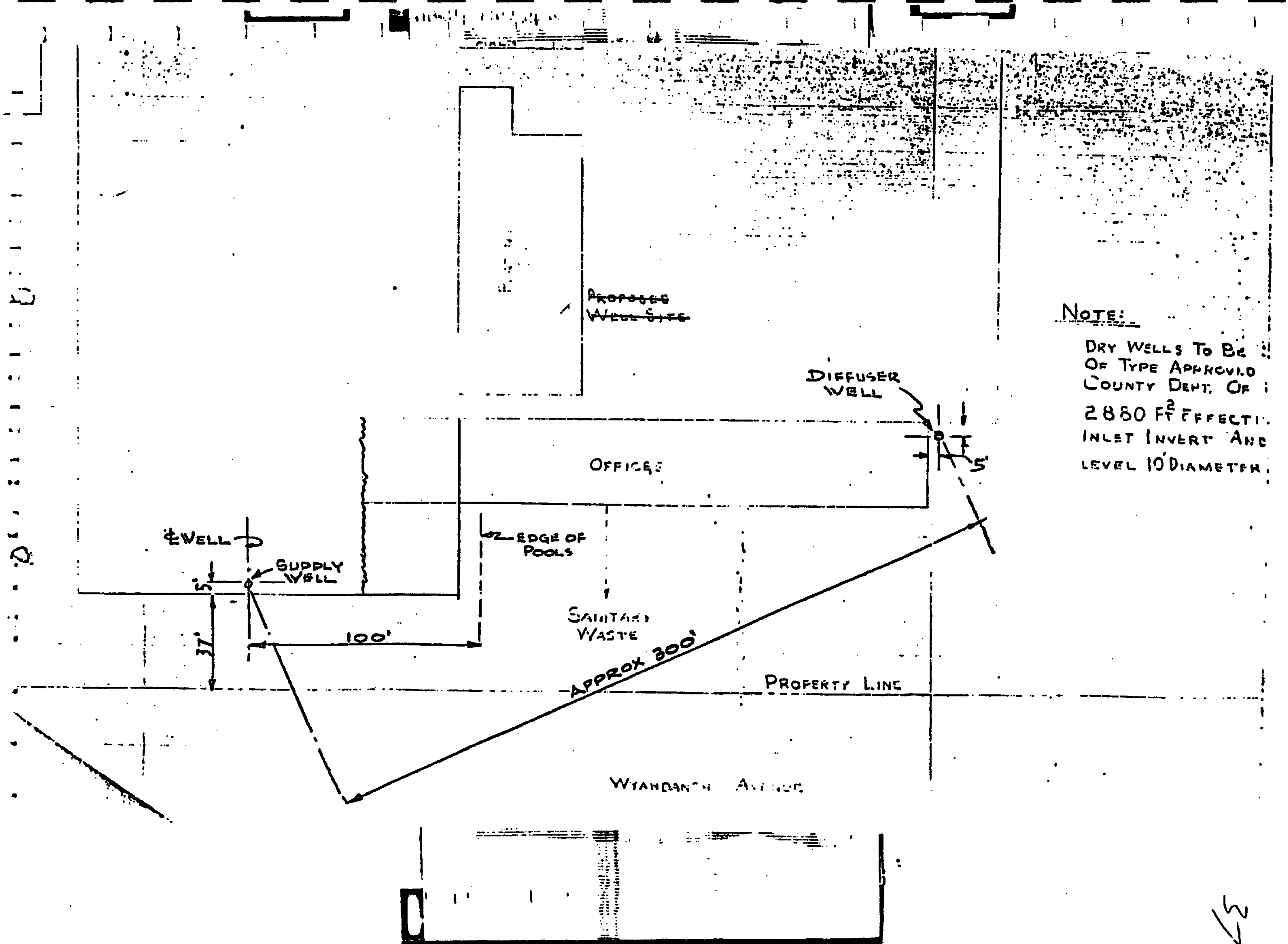
Part II

Department of the Interior

Heritage Conservation and Recreation Service

National Register of Historic Places; Annual Listing of Historic Properties

New York State National Register Listing: 1980



~~Proposed Well Site~~
Note:
Dry Wells To Be Of Type Approved County Dept. Of
2880 Ft² Effecti
Inlet Invert And
level 10' Diameter
Diffuser Well
5'
Offices
℄ Well
Supply Well
5'
Edge of Pools
Sanitary Waste
37'
100'
Approx 300'
Property Line
Wyandanch Avenue

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New York, Stuyvesant Square Historic District [11-21-80]

Oneonta, Farm Site [11-20-80]
Oneonta, [illegible] [11-19-80]
Morris, The Grove [7-10-80]
Cooperstown, Cooperstown Historic District [11-18-80]

Oyster Bay, Oyster Bay Central Historic District [12-3-80]
Bellport, Village of Bellport Multiple Resource Area [7-4-80]

New York, *Roosevelt, Sara Delano, Memorial House,* 47 and 49 E. 65th St. (3-28-80)
New York, *St. Andrew's Episcopal Church,* 2067 5th Ave. (3-18-80)
New York, *St. Augustine's Chapel,* 290 Henry St. (5-6-80)
New York, *St. Bartholomew's Church and Community House,* 109 E. 50th St. (4-16-80)
New York, *St. Jean Baptiste Church and Rectory,* 1067-1071 Lexington Ave. (4-23-80)
New York, *St. Peter's Roman Catholic Church,* 22 Barclay St. (4-23-80)
New York, *St. Thomas Church and Parish House,* 1—3 W. 53rd St. (4-9-80)
New York, *Schinasi House,* 351 Riverside Dr. (4-23-80)
New York, *Scribner Building,* 153—157 5th Ave. (5-6-80)
New York, *Sea and Land Church,* 61 Henry St. (4-9-80)
New York, [redacted] *Town Hall,* 113—123 W. 43rd St. (4-23-80)
New York, *Union Theological Seminary,* W. 120th St. and Broadway (4-23-80)
New York, *University Club,* 1 W. 54th St. (4-16-80)
New York, *Waldo, Gertrude Rhinelander, Mansion,* 867 Madison Ave. (5-6-80)
New York, *West End Collegiate Church and Collegiate School,* W. End Ave. and W. 77th St. (5-6-80)
New York, *West 76th Street Historic District,* W. 76th St. (7-24-80)

Niagara County

Niagara Falls, *Williams, Johann, Farm,* 10031 Cayuga Dr. (1-10-80)
North Tonawanda, *Riviera Theatre,* 27 Webster St. (3-20-80)

Onondaga County

Skaneateles vicinity, *Kelsey-Davey Farm,* NE of Skaneateles on Old Seneca Tpke. (4-16-80)
Syracuse, *Montgomery Street-Columbus Circle Historic District,* E. Jefferson, E. Onondaga, Montgomery and E. Fayette Sts. (2-19-80)
Syracuse, *Syracuse University-Comstock Tract Buildings,* Syracuse University campus (7-22-80)

Ontario County

Victor, *Osborne House,* 146 Maple Ave. (7-11-80)

Orange County

Chester, *Yelverton Inn and Store,* 112-116 Main St. (3-28-80)
Gardnertown, *Gardner, Silas, House,* 1141 Union Ave. (3-28-80)
Port Jervis, *Erie Railroad Station,* Jersey Ave. and Fowler St. (4-11-80)
Tuxedo Park, *Tuxedo Park,* Tuxedo Lake and environs (3-13-80)

Orleans County

Gifford-Walker Farm. Reference—see Genesee County.

Oswego County

Oswego, *Sheldon Hall,* Washington Blvd. (3-13-80)

Montgomery, Montgomery Village Multiple Resource Area [11-21-80]

Goshen, Church Park Historic District [11-17-80]

Otsego County

Oneonta, *Walnut Street Historic District,* Ford Ave., Walnut, Dietz, Elm and Maple Sts. (7-30-80)
Otego vicinity, *Otsdawa Creek Site* (7-22-80)
Unadilla, *Mann, Andrew, Inn,* 33 Riverside Rd. (1-10-80)
Unadilla vicinity, *Russ-Johnsen Site* (7-22-80)

Putnam County

Carmel, *Reed Memorial Library,* 2 Brewster Ave. (3-28-80)
Garrison vicinity, *DeRham Farm,* N of Garrison on Indian Brook Rd. (3-28-80)

Queens County

Elmhurst, *Reformed Church of Newtown Complex,* 8515 Broadway (4-23-80)
Jamaica, *St. Monica's Church,* 9420 160th St. (4-9-80)
New York, *First Reformed Church,* 153 Jamaica Ave. (4-16-80)
Queens, *Office of the Register (Jamaica Arts Center),* 161—04 Jamaica Ave. (1-3-80)

Rensselaer County

Hoosick Falls, *Estabrook Octagon House,* 8 River St. (2-8-80)
Hoosick Falls, Hoosick Falls H.D. [12-3-80]

Richmond County

Staten Island, *Edgewater Village Hall and Tappen Park,* Bounded by Wright, Water, Bay and Canal Sts. (5-19-80)
Staten Island, *Elliott, Dr. Samuel MacKenzie, House,* 69 Delafield Pl. (3-28-80)
Staten Island, *Garibaldi Memorial,* 420 Tompkins Ave. (4-17-80)
Staten Island, *Miller Army Air Field Historic District,* New Dorp Lane (4-11-80)
Staten Island, *Moore-McMillen House,* 3531 Richmond Rd. (4-23-80)
Staten Island, *Seguine House,* 440 Seguine Ave. (5-6-80)
Staten Island, St. Paul's Church & Rectory [11-21-80]

St. Lawrence County

Lisbon, *Lisbon Town Hall,* Church and Main Sts. (9-4-80)

SCHENECTADY COUNTY

Schoharie County

Schoharie, *Westheimer Site* (7-22-80)
West Fulton, Shutter Site [11-28-80]

Seneca County

Covert, Covert Hist. Dist. [11-21-80]
Seneca Falls, *Bloomer, Amelia, House (Women's Rights Historic Sites Thematic Resources),* 53 E. Bayard St. (8-29-80)
Seneca Falls, *Stanton, Elizabeth Cody, House (Women's Rights Historic Sites Thematic Resources),* 32 Washington St. (previously listed in the National Register (10-15-66)
Seneca Falls, *Wesleyan Methodist Church (Women's Rights Historic Sites Thematic Resources),* 126 Fall St. (8-29-80)
Waterloo, *Hunt House (Women's Rights Historic Sites Thematic Resources),* 401 E. Main St. (8-29-80)
Waterloo, *M'Clintock House (Women's Rights Historic Sites Thematic Resources),* 14 E. Williams St. (8-29-80)

Steuben County

Addison, *Addison Village Hall,* Tuscarora and South Sts. (4-23-80)
Hornell, *Hornell Armory,* 100 Seneca St. (5-6-80)
Riverside, *Erwin, William, House,* 509 Water St. (4-11-80)

Rheims, Pleasant Valley Wine Company [11-18-80]

Schenectady, General Electric Realty Plot [11-3-80]

Suffolk County

Mastic Beach, *Old Mastic House (William Floyd Estate),* 20 Washington Ave. (10-15-80)
Rocky Point vicinity, *Radio Central Complex,* S of Rocky Point on Rocky Point-Yaphank Rd. (6-27-80)
Southampton, *Breese, James L., House,* 155 Hill St. (4-16-80)

Sullivan County

Bloomingburg, *Bloomingburgh Reformed Protestant Dutch Church,* NY 17M (1-10-80)

STIOGA COUNTY

Tompkins County

Ithaca, *Llenroc,* 100 Cornell Ave. (4-16-80)

Ulster County

Cottekill vic., Cheatolah [10-21-80]
Kingston, *Ponckhockie Union Chapel,* 91 Abruyn St. (4-23-80)
Kingston and vicinity, *Kingston-Port Ewen Suspension Bridge,* U.S. 9W (4-30-80)

Warren County

Silver Bay, *Silver Bay Association Complex,* NY 9N (3-20-80)

Washington County

Greenwich vicinity, *Coffin Site* (7-22-80)

Wayne County

Sodus Point, *Customs House,* Sentell St. (5-6-80)

Westchester County

Bronxville, *Lawrence Park Historic District,* roughly bounded by Side Hill, Prescott, Kensington, Garden and Chestnut Aves., Maidens Lane, Valley and Pondfield Rds. (1-23-80)
Bronxville, *Masterton-Dusenberry House,* 90 White Plains Rd. (4-16-80)
Hawthorne vicinity, *Hammond House,* S of Hawthorne on Grasslands Rd. (5-6-80)
Millwood, *Sarles' Tavern,* NY 100 (12-31-79)
New Rochelle, *Davenport House* 157 Davenport Rd. (4-30-80)
Ossining, *Brandreth Pill Factory,* Water St. (1-10-80)
Peekskill, *Drum Hill High School,* Ringgold St. (12-31-80)
Salem Center, *North Salem Town Hall,* Titicus Rd. (9-4-80)
Tarrytown, *Music Hall,* 11 Main St. (2-12-80)
White Plains, *White Plains Armory,* 35 S. Broadway (4-16-80)

Wyoming County

Arcade & Attica, Arcade & Attica Railroad [11-17-80]
Warsaw, *Trinity Church,* W. Buffalo St. (3-10-80)
Warsaw, *Warsaw Academy,* 73 S. Main St. (1-3-80)

NORTH CAROLINA

Alamance County

Burlington, *Southern Railway Passenger Station,* Main and Webb Sts. (5-23-80) HAER

Buncombe County

Asheville, *Asheville Historic and Architectural Multiple Resource Area.* This area includes: *Downtown Asheville Historic District,* roughly bounded by 1240, Valley St., Hilliard Ave., and Broad Ave.;

Rye, Playland Amusement Park [7-4-80]

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281

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federal register

Tuesday
February 2, 1982

Part III

Department of the Interior

National Park Service

National Register of Historic Places; Annual Listing of Historic Properties

New York State National Register Listings: 1981 will explode it; when heated, emits highly toxic fumes of lead.

LEAD BENZOATE. White crystals. $Pb(C_7H_5O_2)_2 \cdot H_2O$, mw: 467.5, mp: $-H_2O$ @ 100°.
THR = See lead compounds and lead.

LEAD-*m*-BORATE. White powder. $Pb(BO_2)_2 \cdot H_2O$, mw: 310.87, d: 5.598 (anhydrous).
THR = See lead and boron compounds. A poison.

LEAD BROMATE. Monoclinic crystals. $Pb(BrO_3)_2 \cdot H_2O$, mw: 481.06, mp: 180° (decomp), d: 5.53.
THR = See lead compounds and bromates. A poison.

LEAD BUTYRATE. $C_8H_{14}O_4Pb$, mw: 381.4.
THR = A poison. See also lead compounds.

LEAD CAPRATE. $Pb(C_{10}H_{19}O_2)_2$, mw: 549.71, mp: 103°-104°.
THR = See lead compounds and lead.

LEAD CAPROATE. Crystals. $Pb(C_6H_{11}O_2)_2$, mw: 437.51, mp: 73°-74°.
THR = See lead compounds and lead.

LEAD CAPRYLATE. White leaf. $Pb(C_8H_{15}O_2)_2$, mw: 493.61, mp: 83.5°-84.5°.
THR = See lead compounds and lead.

LEAD CARBONATE. Syn: *cerussite*. White powdery crystals. $PbCO_3$, mw: 267.22, mp: decomp @ 315°, d: 6.61.
THR = An exper (±) carc. [*3*, *9*] A poison. Violent reaction with F_2. [*19*] See lead compounds and lead.

LEAD CARBONATE, BASIC. Syns: *white lead, hydrocerussite*. White powder, amorphous. $2PbCO_3Pb(OH)_2$, mw: 775.67, mp: decomp @ 400°, d: 6.14.
THR = See lead compounds and lead. A poison. Violent reaction with F_2. [*19*]

LEAD CEROTATE. White crystals. $Pb(C_{26}H_{51}O_2)_2$, mw: 998.55, mp: 113.5°.
THR = See lead compounds and lead.

LEAD CHLORATE. Monoclinic white crystals. $Pb(ClO_3)_2$, mw: 374.12, mp: decomp. d: 3.89.
THR = See lead compounds, chlorates and lead. A poison. Reacts violently with S. [*19*]

LEAD CHLORIDE. Syn: *cotunnite*. White crystals, $PbCl_2$, mw: 278.1, mp: 501°, bp: 954°, d: 5.85, vap. press: 1 mm @ 547°.
THR = See lead compounds. A poison. An exper teratogen. [*3*]

LEAD CHLORITE. Monoclinic yellow crystals. $Pb(ClO_2)_2$, mw: 342.12, mp: explodes @ 126°.
THR = See lead compounds and chlorites. Reacts violently with S. [*19*]

LEAD CHROMATE. Syns: *crocoite, chrome yellow*. Yellow crystals. $PbCrO_4$, mw: 323.22, mp: 844°, bp: decomp, d: 6.3.
Acute tox data: ip LD_{50} (guinea pig) = 400 mg/kg. [*3*]
THR = HIGH via ip route. An exper (±) neo and carc. [*3*, *6*] Reacts violently with ferric ferrocyanide. [*19*]

LEAD CHROMATE, BASIC. Red. amorphous or crystals. $Pb_2(OH)_2 \cdot CrO_4$, mw: 564.45, mp: 920°.
THR = See lead and chromium compounds. An exper neo. [*3*]

LEAD CITRATE. White crystalline powder. $Pb_3(C_6H_5O_7)_2 \cdot 3H_2O$, mw: 1053.88.
THR = See lead compounds.

LEAD COMPOUNDS.
THR = Poisons. Lead poisoning is one of the commonest of occupational diseases. The presence of lead-bearing materials or lead compounds in an industrial plant does not necessarily result in exposure on the part of the workman. The lead must be in such form, and so distributed, as to gain entrance into the body or tissues of the workman in measurable quantity, otherwise no exposure can be said to exist. Some are exper (+) carc of the lungs and kidneys. [*14*, *23*, *9*, *95*]

Mode of entry into body:

1. By inhal of the dusts, fumes, mists or vapors. (Common air contaminants.)
2. By ingestion of lead compounds trapped in the upper respiratory tract or introduced into the mouth on food, tobacco, fingers or other objects.
3. Through the skin; this route is of special importance in the case of organic compounds of lead, as lead tetraethyl. In the case of the inorganic forms of lead, this route is of no practical importance.

When lead is ingested, much of it passes through the body unabsorbed, and is eliminated in the feces. The greater portion of the lead that is absorbed is caught by the liver and excreted, in part, in the bile. For this reason, larger amounts of lead are necessary to cause poisoning if absorption is by this route, and a longer period of exposure is usually necessary to produce symptoms. On the other hand, upon inhal, absorption takes place easily from the respiratory tract and symptoms tend to develop more quickly. From the point of view of industrial poisoning, inhal of lead is much more important than is ingestion.

Lead is a cumulative poison. Increasing amounts build up in the body and eventually a point is reached where symptoms and disability occur. Lead produces a brittleness of the red blood cells so that they hemolyze with but slight trauma; the hemoglobin is not affected. Due to their increased fragility, the red cells are destroyed more rapidly in the body than normally, producing an anemia which is rarely severe. The loss of circulating red cells stimulates the production of new young cells which, on entering the blood stream, are acted upon by the circulating lead, with resultant coagulation of their basophilic material. These cells after suitable staining, are recognized as "stippled cells." As regards the effect of lead on the white blood cells, there is no uniformity of opinion. In addition to its effect on the red cells of the blood, lead produces a damaging effect on the organs or tissues with which it comes in contact. No specific or characteristic lesion is produced. Autopsies of deaths attributed to lead poisoning and experimental work on animals, have shown pathological lesions of the kidneys, liver, male gonads, nervous system, blood vessels and other tissues. None of these changes, however, have been found consistently.

In cases of lead poisoning, the amount of lead found in the blood is frequently in excess of 0.07 mg per 100 cc of whole blood. The urinary lead excretion generally exceeds 0.1 mg per liter of urine.

The toxicity of the various lead compounds appears to depend upon several factors: (1) the sol of the compound in the body fluids; (2) the fineness of the particles of the compound; sol is greater, of course, in proportion to the fineness of the particles; (3) conditions under which the compound is being used; where a lead compound is used as a powder; contamination of the atmosphere will be much less where the powder is kept damp. Of the various lead compounds, the carbonate, the monoxide and sulfate are considered to be more toxic than metallic lead or other lead compounds. Lead arsenate is very toxic, due to the presence of the arsenic radical.

Signs and Symptoms: Industrial lead poisoning commonly occurs following prolonged exposure to lead or its compounds. The common clinical types of lead poisoning may be classified according to their clinical picture as (a) alimentary; (b) neuromotor; and (c) encephalic. Some cases may show a combination of clinical types. The alimentary type occurs most frequently, and is characterized by abdominal discomfort or pain. Severe cases may present actual colic. Other complaints are constipation and/or diarrhea, loss of appetite, metallic taste, nausea and vomiting, lassitude, insomnia, weakness, joint and muscle pains, irritability, headache and dizziness. Pallor, lead line on the gums, pyorrhea, loss of weight, abdominal tenderness, basophilic stippling, anemia, slight albuminuria, increased urinary excretion, and an increase in the lead content of the whole blood, are signs which may accompany the above symptoms.

In the neuromuscular type, the chief complaint is weakness, frequently of the extensor muscles of the wrist and hand, unilateral or bilateral. Other muscle groups which are subject to constant use may be affected. Gastroenteric symptoms are usually present, but are not as severe as in the alimentary type of poisoning. Joint and muscle pains are likely to be more severe. Headache, dizziness and insomnia are frequently prominent. True paralysis is uncommon, and usually is the result of prolonged exposure.

Lead encephalopathy is the most severe but the rarest manifestation of lead poisoning. In the industrial worker it follows rapid and heavy lead absorption. Organic lead compounds, such as tetraethyl lead, are absorbed rapidly through the skin as well as through the lungs, and are selectively absorbed by the CNS. The clinical picture in these cases is usually an encephalopathy. With inorganic lead compounds, comparable conc in the CNS are reached only when the workplace is heavily contaminated with vapor, fume and dust. Encephalopathy begins abruptly, and is characterized by signs of cerebral and meningeal involvement. There is usually stupor, progressing to coma, with or without convulsion, and often terminating in death. Excitation, confusion and mania are less common. In milder cases of short duration, there may be symptoms of headache, dizziness, somnolence and insomnia. The cerebrospinal pressure may be increased. See also specific compound.

Diagnosis: A diagnosis of lead poisoning should not be made on the basis of any single clinical or laboratory finding. There must be a history of significant exposure, signs, and symptoms (as described above) compatible with the diagnosis, and confirmatory laboratory tests. Increase of stippled red blood cells, mild anemia, and elevated lead in blood and urine, i.e., more than 0.07 mg/100 ml blood and similar values per liter of urine. An increase of coproporphyrins and certain amino acids in urine may be present. Diagnostic mobilization of lead with calcium EDTA may be useful in questionable cases.

Treatment of Lead Poisoning: It has been found that the chelating agent, calcium ethylenediaminetetracetate, and related compounds are highly efficacious in removing absorbed lead from the tissues of the body. (The therapeutic agents of this group are also known as versene, versenate, edathamil and Ca EDTA. Ca EDTA is effective only when administered intravenously. Various dosage schedules have been proposed. An effective regime is 3–6 g of Na Ca EDTA in 300 cc–500 cc of 5% glucose by intravenous drip over a period of 3–8 hrs. Treatment may

THR = See nickel compounds, palladium compounds and chlorides.

NICKEL CHLOROPLATINATE. Trigonal crystals. $NiPtCl_6 \cdot 6H_2O$, mw: 574.76, d: 2.798.
THR = See platinum compounds, nickel compounds and chlorides.

NICKEL COBALT SULFATE. Reddish-brown crystalline mass. $NiSO_4 \cdot CoSO_4 \cdot 14H_2O$, mw: 561.99.
THR = See nickel compounds, cobalt compounds and sulfates.

NICKEL COMPOUNDS.
THR = Nickel and most salts of nickel are generally considered not to cause systemic poisoning. Ingestion of large doses of nickel as nickel compounds (1–3 mg/kg) has been shown to cause intestinal disorders, convulsions and asphyxia in dogs. Nickel has been found in the hair of persons exposed to nickel oxide dust. Many Ni compounds are exper carc and some are human carc via inhal route. [*14, 2, 23, 95, 71*] All airborn Ni contaminating dusts are regarded as carc via inhal. [*71*] Use personal hygiene to minimize worker contact with Ni; eliminate wound contamination by Ni. The most common effect resulting from exposure to nickel compounds is the development of the "nickel itch." This form of dermatitis occurs chiefly in persons doing nickel-plating. There is marked variation in individual susceptability to the dermatitis. It occurs more frequently under conditions of high temp. and humidity, when the skin is moist, and chiefly affects the hands and arms. Nickel carbonyl is a (+) carc and a high irr to the lungs and also can produce asphyxia by decomp with the formation of carbon monoxide. These compounds are common air contaminants.

NICKEL CYANIDE. Apple-green plates or powder. $Ni(CN)_2$, mw: 110.8.
THR = A poison. See cyanides and nickel compounds. Reacts violently with Mg. [*19*]

NICKEL DI-pi-CYCLOPENTADIENYL. Syn: *nickelocene*. $Ni \cdot C_{10}H_{10}$, mw: 188.9.
Acute tox data: Oral LD_{50} (rat) = 490 mg/kg; ip LD_{50} (rat) = 50 mg/kg; im LD_{50} (mouse) = 150 mg/kg. [*3*]
THR = HIGH via oral, ip and im routes. See also nickel compounds. An exper (+) carc [*23, 3, 6*] via im route. [*103, 118*]

NICKEL DIFLUORIDE. See nickel fluoride.

NICKEL DITHIONATE. Green triclinic crystals. $NiS_2O_6 \cdot 6H_2O$, mw: 326.92, mp: decomp, d: 1.908.
THR = See nickel compounds.
Disaster Hazard: Dangerous; see sulfates.

NICKEL FERRITE. See nickel compounds.

NICKEL FERROCYANIDE. Green-white crystals. $Ni_2Fe(CN)_6 \cdot xH_2O$, d: 1.892.
THR = See ferrocyanides and nickel compounds.

NICKEL FLUOBORATE.
Acute tox data: Oral LD_{LO} (rat) = 500 mg/kg; inh LC_{LO} (mouse) = 530 mg/m^3 for 10 min. [*3*]
THR = HIGH via oral and inhal routes. See al fluorides, boron and nickel compounds.

NICKEL FLUOGALLATE. Pale green crystals. $[Ni(H_2O)_6][GaF_5H_2O]$, mw: 349.52, mp: $-5H_2O$ 110°, d: 2.45.
THR = See fluogallates and nickel compounds.

NICKEL FLUORIDE. Syn: *nickel difluoride*. Gre crystals, slightly water-sol, decomp by boiling wat NiF_2, mw: 96.69, d: 4.63.
Acute tox data: iv LD_{50} (mouse) = 130 mg/kg. [*3, 10*
THR = HIGH via iv route. See also fluorides an nickel compounds. Reacts violently with K. [*19*]

NICKEL FLUOSILICATE. $NiSiF_6$, mw: 200.8.
Acute tox data: Oral LD_{LO} (rat) = 100 mg/kg. [*3*]
THR = HIGH via oral route. See also fluosilicat and nickel compounds.

NICKEL FORMATE. Green crystals. $Ni(CHO_2)_2 \cdot 2H_2O$, mw: 184.76, mp: decomp, d: 2.154.
THR = See nickel compounds.
Disaster Hazard: Slight; when heated, emits acr fumes.

NICKEL GALLIUM ALLOY.
THR = An exper carc to rats via imp route. [*103*]

NICKEL HEXAMMINE CHLORATE.
$Ni(NH_3)_6(ClO_3)_2$, mw: 327.8.
THR = See nickel compounds. Detonates on impa [*19*]

NICKEL HEXAMMINE PERCHLORATE.
$Ni(NH_3)_6(ClO_4)_2$, mw: 359.8.
THR = See nickel compounds. Detonates wh struck. [*19*]

NICKEL HYDROXIDE. See nickelous hydroxide.

NICKEL HYPOPHOSPHITE. Green crystals. $Ni(H_2PO_2)_2 \cdot 6H_2O$, mw: 296.78, mp: explodes 100°, d: 1.82 @ 19.8°.
THR = See nickel compounds. See phosphine. Li erates PH_3 @ 100°. [*19*]
Explosion Hazard: Mod. when exposed to heat.
Disaster Hazard: Dangerous; may explode @ 100 Keep away from heat and open flame.

NICKELIC HYDROXIDE. See nickelous hydroxide.

NICKELIC OXIDE. See nickel peroxide.

NICKEL IODATE. Yellow needles. $Ni(IO_3)_2$, m 408.53, d: 5.07.
THR = See nickel compounds and iodates.

Disaster Hazard: Dangerous; shock will explode them: when heated, they emit highly toxic fumes of chlorides; they can react with reducing materials.
To Fight Fire: Water or foam.

PERCHLORIC ACID. Colorless, fuming, unstable liquid. $HClO_4$, mw: 100.47, mp: −112°, bp: 19° @ 11 mm, d: 1.768 @ 22°.
THR = VERY irr to skin, eyes and mu mem. HIGH via oral and inhal routes.
Fire Hazard: See perchlorates.
Explosion Hazard: See perchlorates. React violently with acetic acid, (acetic acid + acetic anhydride), acetic anhydride, alcohols, (aniline + HCHO), Sb compounds, Bi, cellulose, charcoal, dibutyl sulfoxide, ethyl ether, dimethyl sulfoxide, F_2, (PbO + glycerine), glycolethers, glycols, HI, HCl, H_2, P_2O_5, hypophosphites, ketones, CH_3OH, NI_3, nitrosophenol, paper, (P_2O_5 + $CHCl_3$), NaI, steel, sulfoxides, H_2SO_4, SO_3, wood. [*19*] The anhydrous form can explode spont.
Disaster Hazard: See perchlorates.

PERCHLORIC ACID DIHYDRATE. See perchloric acid (over 72%).

PERCHLORIC ACID, MONOHYDRATE. Syn: *hydronium perchlorate*. Fairly stable needles. $HClO_4 \cdot H_2O$, mw: 118.48, mp: 50°, bp: explodes @ 110°, d: 1.88, d. liq: 1.776 @ 50°.
THR = See perchloric acid, sulfuric acid, and perchlorates.

PERCHLORIC ACID (NOT OVER 72%). Clear liquid. $HClO_4 \cdot 3H_2O$, mw: 154.5, mp: −18°, bp: 200°, d: 1.5967 @ 25°/4°.
THR = See perchloric acid.

PERCHLORIC ACID (OVER 72%). Syn: *perchloric acid dihydrate*. Stable liquid. $HClO_4 \cdot 2H_2O$, mw: 136.5, mp: −17.8°, bp: 200°, d: 1.729 @ 25°/4°.
THR = See perchloric acid.

PERCHLOROBENZENE. See hexachlorobenzene.

PERCHLOROETHYLENE. Syns: *tetrachloroethylene, ethylene tetrachloride, carbon dichloride*. Colorless liquid, chloroform-like odor. CCl_2CCl_2, mw: 165.82, mp: −23.35°, bp: 121.20°, flash p: none, d: 1.6311 @ 15°/4°, vap. press: 15.8 mm @ 22°, vap. d: 5.83.
Acute tox data: Inhal TC_{LO} (human) = 230 ppm ⟶ systemic effects; inhal TC_{LO} (man) = 280 ppm for 2 hrs ⟶ eye effects; inhal TC_{LO} (man) = 600 ppm for $\frac{1}{6}$ hr ⟶ CNS effects; oral LD_{LO} (dog) = 4000 mg/kg; sc LD_{LO} (rabbit) = 2000 mg/kg; iv LD_{LO} (dog) = 85 mg/kg. [*3*]
THR = MOD via inhal, oral, sc, ip and dermal routes. HIGH via iv route. Not corrosive or dangerously reactive, but toxic by inhal, by prolonged or repeated contact with the skin or mu mem, or when ingested by mouth. The liquid can cause injuries to the eyes; however, with proper precautions it can be handled safely. The symptoms of acute intoxication from this material are the result of its effects upon the nervous system.

Exposures to higher conc than 200 ppm cause irr, lachrymation and burning of the eyes and irr of the nose and throat. There may be vomiting, nausea, drowsiness, an attitude of irresponsibility, and even an appearance resembling alcoholic intoxication. This material also acts as an anesthetic, through the inhalation of excessive amounts within a short time. The symptoms of fatal intoxication are irritation of the eyes, nose and throat, then fullness in the head, mental confusion; there may be headache stupefaction, nausea and vomiting, personnel suffering from subacute poisoning may suffer from such symptoms as headache, fatigue, nausea, vomiting, mental confusion and temporary blurring of the vision. This can occur when inadequate ventilation results in concentrations higher than 200 ppm, or where the vapor conc are intermittently high due to faulty handling of the material, or when an individual fails to take adequate precautionary measures.

This material can cause dermatitis, particularly after repeated or prolonged contact with the skin. The dermatitis is preceded by a reddening and burning and more rarely, a blistering of the skin. In any event, the skin becomes rough and dry, due largely to the removal of skin oils by material. The skin then cracks easily and is readily susceptible to infection (Section 9). Upon ingestion it causes irr of the gastrointestinal tract, which, in turn, causes nausea, vomiting, diarrhea and bloody stools. However, such effects are usually less severe than the effects of swallowing similar amounts of other chlorinated hydrocarbons.

It may be handled in the presence or absence of air, water, and light with any of the common construction materials at temp. up to 140°C. This material is extremely stable and resists hydrolysis. A common air contaminant. Reacts violently with Ba, Be, Li. [*19*]
Disaster Hazard: Dangerous; when heated to decomp, it emits high tox fumes of chlorides.

PERCHLOROMETHYL MERCAPTAN. Syn: *thiocarbonyl tetrachloride, trichloromethane sulfonyl chloride*. Yellow oily liquid. $CHSCl_3$, mw: 151.4, bp: slight decomp @ 149°, d: 1.700 @ 20°, vap. d: 6.414.
Acute tox data: Inhal TC_{LO} (human) = 45 ppm ⟶ eye effects; inhal LC_{LO} (human) = 483 ppm for $\frac{1}{6}$

TRICHLOROETHYLENE. Syns: *ethinyl trichloride, ethylene trichloride.* Stable, colorless, heavy, mobile liquid, chloroform-like odor. $CHClCCl_2$, mw: 131.40, mp: −73°, bp: 87.1°, fp: −86.8°, d: 1.45560 @ 25°/4°, autoign. temp.: 788°F; vap. press: 100 mm @ 32°, vap. d: 4.53, flash p: none, lel = 12.5%, uel = 90%.

Acute tox data: Oral LD_{Lo} (human) = 857 mg/kg; 160 ppm for 83 min ⟶ human CNS effects; 110 ppm for 8 hrs ⟶ inhal human irr effects; oral LD_{50} (rat) = 4920 mg/kg; inhal LC_{Lo} (rat) = 8000 ppm for 4 hrs; ip LD_{50} (dog) = 1900 mg/kg; iv LD_{Lo} (dog) = 150 mg/kg. [*3*]

THR = HIGH via iv; MOD via ip, inhal, oral routes. An exper (S) carc. [*3, 13*] Inhal of high conc causes narcosis and anesthesia. A form of addiction has been observed in exposed workers. Prolonged inhal of mod conc causes headache and drowsiness. Fatalities following severe, acute exposure have been attributed to ventricular fibrillation resulting in cardiac failure. There is damage to liver and other organs from chronic exposure. Cases have been reported but are of questionable validity. Determination of the metabolites trichloracetic acid and trichloroethanol in urine reflects the absorption of trichloroethylene. A food additive permitted in food for human consumption. [*109*] A common air contaminant.

Fire Hazard: Low, when exposed to heat or flame. High conc of trichloroethylene vapor in high-temp. air can be made to burn mildly if plied with a strong flame. Though such a condition is difficult to produce, flames or arcs should not be used in closed equipment which contains any solvent residue or vapor. Can react violently with Al, Ba, N_2O_4, Li, Mg, liquid O_2, O_3, KOH, KNO_3, Na, NaOH, Ti. [*19*]

Spont Heating: No.

Disaster Hazard: Dangerous; see chlorides.

TRICHLOROETHYL SILANE. $C_2H_5SiCl_3$, mw: 163.5.

THR = Reacts violently with water. [*19*]

TRICHLOROFLUOROGERMANE. Colorless liquid. $GeCl_3F$, mw: 197.97, mp: −49°, bp: 37.5°.

THR = See fluorides, germanium compounds and chlorides.

1,1-TRICHLOROFLUOROETHANE. $C_2H_2Cl_3F$, mw: 151.4.

THR = No data. See fluorides. Violent reaction with Ba. [*19*]

TRICHLOROFLUOROMETHANE. See fluorotrichloromethane.

TRICHLOROGERMANE. Syn: *germanium chloroform.* Colorless liquid. $GeHCl_3$, mw: 179.98, mp: −71.0°, bp: 75.2°, d: 1.93 @ 0°C.

THR = See hydrochloric acid and germanium compounds.

TRICHLOROISOCYANURIC ACID. White crystals, chlorine odor, mod sol in water. $(ClNCO)_3$, mw: 232.5, mp: 225°–230° (decomp).

Acute tox data: Oral LD_{50} (rat) = 700–800 mg/kg.

THR = MOD–HIGH via oral route. Toxicity symptoms include emaciation, lethargy, weakness and delayed death. Autopsy shows inflammation of GI tract, liver discoloration and kidney hyperemia. A powerful oxidizer.

Disaster Hazard: Dangerous; when heated to decomp, emits chloride and carbon monoxide fumes.

1,1,1-TRICHLOROISOPROPYL ALCOHOL. Syns: *isopral, 1,1,1-trichloro-2-propanol.* Crystals, camphor-like odor, pungent taste, water-sol. $C_3H_5Cl_3O$, mw: 163.4, mp: 50°, bp: 162°.

Acute tox data: Oral LD_{Lo} (rat) = 1000 mg/kg. [*3*]

THR = MOD via oral route. See also chlorinated hydrocarbons, aliphatic.

Disaster Hazard: Dangerous; see chlorides.

TRICHLOROMELAMINE. Syn: *TCM.* White powder, slightly water-sol. $C_3H_3Cl_3N_6$, mw: 229.4, autoign. temp.: 320°F.

Acute tox data: Oral LD_{50} (mice) = 490 mg/kg. [*3*]

THR = HIGH via oral route.

Fire Hazard: Mod, in the pure state, when heated or ignited by spark or flame; reacts vigorously to evolve smoke and heat; reacts with acetone, NH_3, aniline, diphenylamine, turpentine. [*19*] Vendor can supply directions for handling.

Disaster Hazard: Dangerous; when heated to decomp, emits highly toxic chloride and NO_x fumes.

TRICHLOROMETHANE. See chloroform.

TRICHLOROMETHANE SULFENYL CHLORIDE. See perchloromethyl mercaptan.

TRICHLOROMETHYL CHLOROFORMATE. See diphosgene.

TRICHLOROMETHYL ETHER. A liquid of pungent odor. $CHCl_2OCH_2Cl$, mw: 149.42, bp: 130°–132°, d: 1.5066 @ 10°.

THR = HIGH irr to skin, eyes and mu mem and via oral, inhal routes. See also ethers.

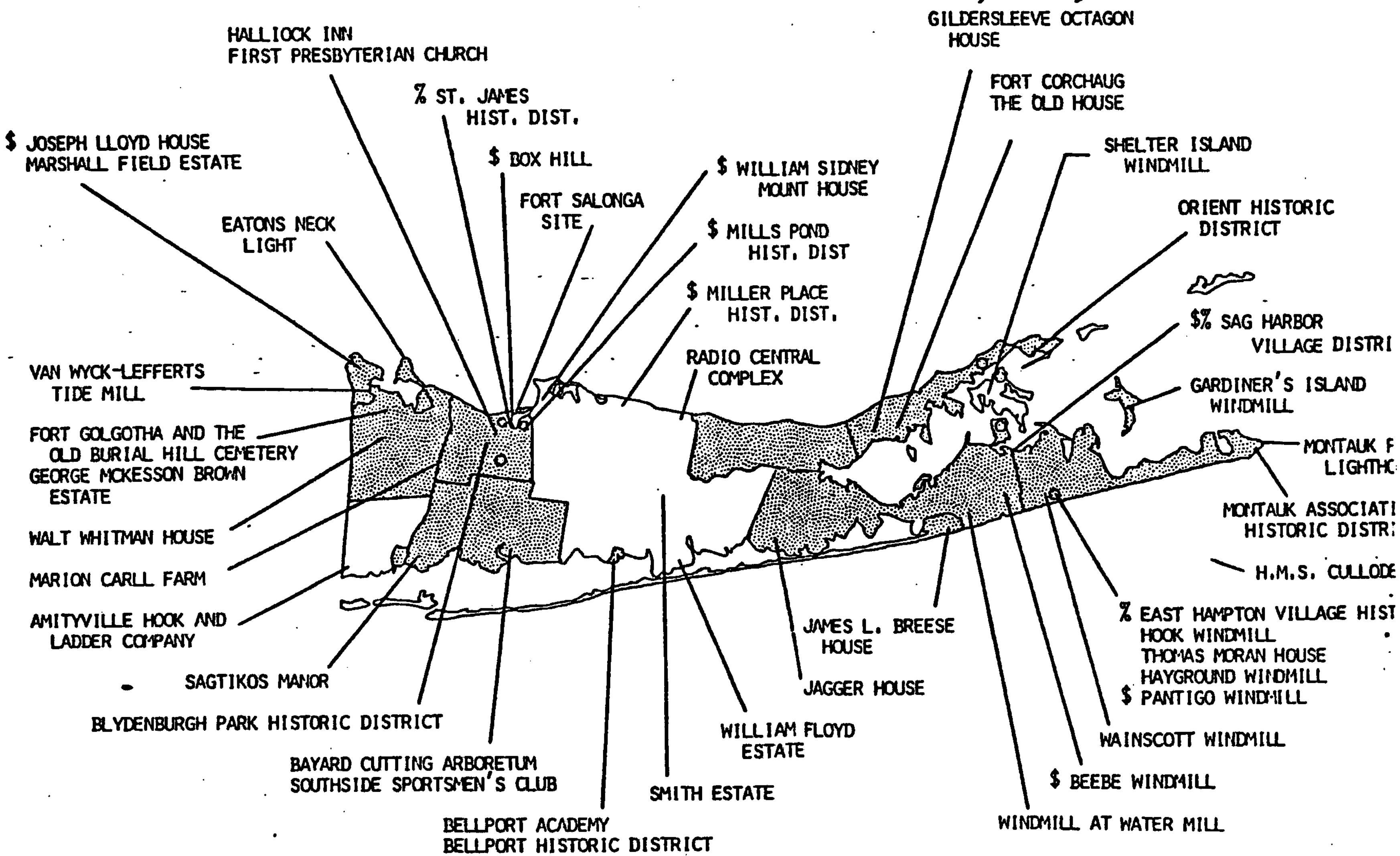
Disaster Hazard: Dangerous; when heated to decomp, emits highly toxic fumes; will react with water or steam to produce toxic and corrosive fumes.

TRICHLOROMETHYL PERCHLORATE. Cl_3CClO_4, mw: 217.8.

THR = Detonates @ 40°.

Suffolk Co.,
Properties listed on or approved for nomination to the State and/or national Registers of Historic Places

SHADED AREA: HISTORIC STRUCTURE SURVEYS COVERING AT LEAST 20% OF AREA



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NEW MEXICO

Fort Stanton Cave, Lincoln County—7 miles west of Lincoln.

Ghost Ranch, Rio Arriba County—11 miles south of Canjilon.

Grants Lava Flow, Valencia County—extends about 25 miles south from Grants, between New Mexico 117 on the east and New Mexico 53 on the west.

Kilbourne Hole, Dona Ana County—26 miles southwest of Las Cruces.

Ship Rock, San Juan County—35 miles west of Farmington.

Torgac Cave, Lincoln County—20 air miles southeast of Corona.

Valles Caldera, Sandoval and Rio Arriba Counties—30 miles northwest of Santa Fe.

[illegible] of Natural Landmarks

NEW YORK

Bear Swamp, Albany County—3 miles south of the village of Westerlo.

Bergen-Byron Swamp, Genesee County—between Bergen and Byron.

Big Reed Pond, Suffolk County—3 miles west of Montauk Point.

Deer Lick Nature Sanctuary, Cattaraugus County—4 miles southeast of Gowanda.

Dexter Marsh, Jefferson County—2 miles southwest of the town of Dexter.

Ellenville Fault-Ice Caves, Ulster County—5 miles southeast of Ellenville.

Fall Brook Gorge, Livingston County—1½ miles south of Geneseo.

Fossil Coral Reef, Genesee County—4 miles northwest of Le Roy.

Gardiner's Island, Suffolk County—100 miles east of New York City, in Block Island Sound off Long Island.

Hart's Woods, Monroe County—10 miles southeast of Rochester.

Iona Island Marsh, Rockland County—2 miles south of Fort Montgomery.

Ironsides Island, Jefferson and St. Lawrence Counties—in St. Lawrence River, 8 miles northeast of town of Alexandria Bay.

Lakeview Marsh and Barrier Beach, Jefferson County—20 miles southwest of Watertown.

McLean Bogs, Tompkins County—1½ miles east-southeast of the village of McLean.

Mendon Ponds Park, Monroe County—11 miles south of Rochester.

Mianus River Gorge, Westchester County—2 miles south of Bedford.

Montezuma Marshes, Seneca County—Montezuma National Wildlife Refuge, 4 miles northeast of Seneca Falls.

Moss Island, Herkimer County—within city limits of Little Falls.

Moss Lake Bog, Allegany County—2 miles southwest of Houghton.

Oak Orchard Creek Marsh, Genesee and Orleans Counties—Iroquois National Wildlife Refuge, 7 miles south-southeast of Medina.

Petrified Gardens, Saratoga County—4 miles west of Saratoga Springs.

Round Lake, Onondaga County—2 miles northeast of Fayetteville.

Thompson Pond, Dutchess County—20 miles east of Kingston.

Zurich Bog, Wayne County—9 miles north of the city of Newark.

NORTH CAROLINA

Green Swamp, Brunswick County—0 miles north of the village of Supply.

Long Hope Creek Spruce Bog, Ashe and Watauga Counties—10 miles north-northeast of Boone.

Mount Jefferson State Park, Ashe County—1 mile east of West Jefferson.

Mount Mitchell State Park, Yancey County—20 miles northeast of Asheville.

Nags Head Woods and Jockey Ridge, Dare County—1½ miles northwest of Nags Head on Bodie Island.

Piedmont Beech Natural Area, Wake County—William B. Umstead State Park, 7 miles northwest of Raleigh.

Pilot Mountain, Surry County—Pilot Mountain State Park, 3 miles south of the town of Pilot Mountain.

Stone Mountain, Alleghany and Wilkes Counties—Stone Mountain State Park, 9 miles southeast of Sparta.

NORTH DAKOTA

Rush Lake, Cavalier County—5 miles south of Hannah.

Sibley Lake, Kidder County—5 miles north of Dawson.

Two-Top Mesa and Big Top Mesa, Billings County—14 airline miles northwest of Fairfield.

OHIO

Arthur B. Williams Memorial Woods, Cuyahoga County—within corporate boundary of Mayfield.

Blacklick Woods, Fairfield County—1 mile south of Renoldsburg.

Brown's Lake Bog, Wayne County—11 miles southwest of Wooster.

Buzzardroost Rock-Lynx Prarie-The Wilderness, Adams County—75 miles east of Cincinnati.

Cedar Bog, Champaign County—7 miles north of Springfield.

Clear Fork Gorge, Ashland County—4 miles south of Loudenville.

Clifton Gorge, Greene County—10 miles south of Springfield.

Crall Woods, Ashland County—5 miles south-southwest of New London.

Cranberry Bog, Licking County—20 miles east of Columbus.

Dysart Woods, Belmont County—11 miles southwest of St. Clairsville.

Fort Hill State Memorial, Highland County—3 miles north-northwest of Sinking Spring.

Glacial Grooves State Memorial, Erie County—on Kelleys Island, 5 miles offshore from Marblehead.

Glen Helen Natural Area, Greene County—in Yellow Springs.

Goll Woods, Fulton County—Goll Woods State Forest, 3 miles northwest of Archbold.

Hazelwood Botanical Preserve, Hamilton County—½ mile east of Hazelwood.

Holden Natural Areas, Lake and Geauga Counties—30 miles east of Cleveland.

Hueston Woods, Butler and Preble Counties—4½ miles north of Oxford.

Mantua Swamp, Portage County—at the southeast edge of Mantua.

Mentor Marsh, Lake County—near Painesville.

Tinkers Creek Gorge, Cuyahoga County—12 miles southeast of Cleveland.

White Pine Bog Forest, Geauga County—3½ miles south-southwest of Burton.

OKLAHOMA

Devil's Canyon, Canadian County—22 miles west-southwest of El Reno.

McCurtain County Wilderness Area, McCurtain County—center of site is 12 miles south of Smithville.

OREGON

Crown Point, Multnomah [...] east of Portland.

Fort Rock State Monumen[...] 49 miles south-southeast [...]

Horse Ridge Natural [...] *County*—16 miles southea[...]

Newberry Crater, Deschu[...]chutes National Forest, [...] southeast of Bend.

PENNSYLVANIA

Bear Meadows Natura[...] *County*—6 miles southea[...]lege.

Box Huckleberry Site, Perr[...] south of New Bloomfield.

Cook Forest, Clarion Cou[...] State Park.

Ferncliff Peninsula Natu[...] *County*—Ohiopyle State [...] southeast of Connellsville

Ferncliff Wildflower and [...] *Lancaster County*—3 mil[...]field.

Florence Jones Reineman [...]*ary, Perry and Cumberl*[...] miles northwest of Carlisl[...]

Hawk Mountain Sa[...] *County*—30 miles north o[...]

Hearts Content Scenic [...] *County*—14 miles southwe[...]

Hemlocks Natural Area, [...] miles south of Blain.

Hickory Run Boulder [...] *County*—in the Pocono P[...]

Lake Lacawac, Wayne C[...] east of Scranton.

McConnell's Mill State [...] *County*—40 miles north of [...]

Pine Creek Gorge, Tioga [...] roadless stretch betwee[...] Blackwell.

Presque Isle, Erie County[...] Erie.

Reynolds Spring and Alco[...] *Tioga County*—Tioga Sta[...] south of Leetonia.

Snyder-Middleswarth Natu[...] *County*—5 miles west of T[...]

Susquehanna Water Gaps, [...] 18 miles north of Harrisbu[...]

Tamarack Swamp, Warren [...] northeast of Columbus.

Tannersville Cranberry [...] *County*—5 miles northw[...]burg.

The Glens Natural Area, L[...]*zerne Counties*—in Ricke[...] Park, 25 miles east of Will[...]

Tinicum Wildlife Preser[...] *County*—Philadelphia.

Tionesta Scenic and R[...] *Areas, Warren and McK*[...] miles south of Ludlow.

Titus and Wattsburg Bogs, E[...]

Wissahickon Valley, Philad[...] Fairmount Park, Philadel[...]

PUERTO RICO

Mona and Monito Islands—[...]lands in the Caribbean.

RHODE ISLAND

Ell Pond, Washington C[...] southwest of Rockville.

SOUTH CAROLINA

Congaree River Swamp, Ri[...] 20 miles southeast of Colu[...]

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NEW YORK

NATIONAL REGISTRY OF NATURAL LANDMARKS (* = Registered)	COUNTY	DATE	REMARKS
*Bear Swamp	[redacted]	8-73	
*Bergen-Byron Swamp	Genesee	6-64	
Big Reed Pond	[redacted]	4-73	
*Deer Lick Nature Sanctuary	Cattaraugus	12-67	
*Dexter Marsh	Jefferson	10-73	
*Ellenville Fault-Ice Caves	Ulster	12-67	
*Fall Brook Gorge	Livingston	4-70	
*Fossil Coral Reef	Genesee	5-68	
Gardiner's Island	[redacted]	4-67	
Hart's Woods	Monroe	4-72	
*Iona Island Marsh	Rockland	12-74	
*Ironsides Island	Jefferson St. Lawrence	10-67	
Lakeview Marsh and Barrier Beach	Jefferson	4-73	
*McLean Bogs	Tompkins	11-73	
*Mendon Ponds Park	Monroe	12-67	
*Mianus River Gorge	Westchester	4-64	
*Montezuma Marshes	Seneca	3-74	
Moss Island	Herkimer	5-76	
*Moss Lake Bog	Allegany	8-73	
*Oak Orchard Creek Marsh	Genessee, Orleans	3-74	
*Petrified Gardens	Saratoga	5-67	
*Round Lake	Onondaga	11-73	
*Thompson Pond	Dutchess	8-73	
*Zurich Bog	Wayne	9-73	

not applicable

POTENTIAL (recommended in natural history theme studies)		THEME STUDY	
Accabonac Harbor	Suffolk	ACP-E	
Amagansett NWR; and Atlantic Double Dunes	Suffolk	ACP-E	Partly FWS, partly TNC

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NEW YORK

POTENTIAL	COUNTY	DATE	THEME STUDY	REMARKS
Carman's River	Suffolk		ACP-E	Partly FWS
Cayuatavaille White Pine Stand	Albany		EDF-F	
Cicero Bog	Onondaga		EDF-F	
Clerk Reservation	Onondaga		EDF-L	
Connetquot River State Park	Suffolk		ACP-E	Partly State
Cranberry Bog Nature Preserve	Suffolk		ACP-E	
David Weld Sanctuary	Suffolk		ACP-E	
Deep Woods Glen	Cortland, Onondaga		EDF-F	
Eldridge White Spruce Swamp (Shushan Swamp)	Washington		EDF-F	
Etna Pine Woods	Tompkins		EDF-F	
Five Ponds-Wolf Pond Natural Area	Herkimer		EDF-F	
Greenport Nature Study Area	Suffolk		ACP-E	
Haverstraw Quarry (Palisades Sill)	Rockland		P-G	Eval. 6-77
Henry Smith Park (Smith Woods)	Tompkins		EDF-F	
Hollins Preserve	Suffolk		ACP-E	TNC
Hook Mountain and Nyack Beach State Park (Palisades Sill)	Rockland		P-G	Eval. 1-77
Labrador Pond	Onondaga, Cortland		EDF-F	
Lawrence Marsh Heron Colony	Nassau		ACP-E	
Long Beach, Orient State Park	Suffolk		ACP-E	State
Montauk	Suffolk		ACP-E	Partly State includes t[illegible] Reed Pond; [illegible]artly USAF: existing Big [illegible]ural landmark
Moriches Flats	Suffolk		ACP-E	
Morton (Elizabeth Alexandra) NWR	Suffolk		ACP-E	FWS
Mount Dix	Essex		EDF-F	
Mount Haystack	Essex		EDF-F	
Mount Marcy	Essex		EDF-F	
Mount Sinai Harbor	Suffolk		ACP-E	
Mount Skylight	Essex		EDF-F	
The Old Maids Woods	Schenectady		EDF-F	
Pineridge Virgin Pine	Herkimer		EDF-F	
Plum Island	Suffolk		ACP-E	USDA
Riemen Woods	Enfield		EDF-F	
Riverhead Cedar Swamp Area	Suffolk		ACP-E	Partly US Navy

POTENTIAL	COUNTY	DATE	THEME STUDY	REMARKS
Robins Island	Suffolk		ACP-E	
Sagg Swamp	Suffolk		ACP-E	TNC
Sparkill Gap	Rockland		P-G	Eval. 6-77
Target Rock NWR	Suffolk		ACP-E	FWS
Thorne Preserve	Suffolk		ACP-E	TNC
Wading River Marshes	Suffolk		ACP-E	TNC
Walking Dunes	Suffolk		ACP-E	State

INACTIVE (less than national significance

Braddock Bay State Park	Monroe	5-74	EDF-L	
Buckhorn Island State Park	Erie	5-74	EDF-L	
Keilis Pond	Suffolk	5-74	IW	
Leatherman Caves	Westchester	10-77	LCS	See also Connecticut #30
Long Pond	Suffolk	5-74	IW	
Mt. Ivy Glacial Delta	Rockland	2-77	P-G	
Nissequogue River	Suffolk	5-74	IW	
Seneca Lake Marsh	Schuyler	5-74	EDF-F;IW	
Snake Hill	Saratoga	5-74	EDF-K	

federal register

NATIONAL REGISTER OF HISTORIC PLACES
NEW YORK STATE LISTINGS: 1968-1982

Saratoga Springs. *PURE OIL GAS STATION*, 65 Spring St., (10-18-78)

Saratoga Springs. *TODD, HIRAM CHARLES, HOUSE (MARVIN-SACKETT-TODD HOUSE)*, 4 Franklin Sq., (5-31-72) PH0040797

Saratoga Springs. *UNION AVENUE HISTORIC DISTRICT*, Union Ave., (4-4-78)

Troy vicinity. *CHAMPLAIN CANAL*, Extends N from Troy to Whitehall (also in Washington County), (9-1-76) (also in Washington County)

Waterford. *NORTHSIDE HISTORIC DISTRICT*, Both sides of Saratoga Ave. (NY 32) from Maple Ave. to Roosevelt Bridge (includes Old Champlain Canal), (12-4-75)

Waterford. *PEEBLES (PEOBLES) ISLAND*, At jct. of Mohawk and Hudson rivers, (10-2-73) PH0040789

Waterford. *WATERFORD VILLAGE HISTORIC DISTRICT*, Roughly bounded by the Hudson River, Erie Canal, and State St., (7-14-77)

schenectady county

Delanson vicinity. *CHRISTMAN BIRD AND WILDLIFE SANCTUARY*, Schoharie Tpke., (8-25-70) PH0040801.

Rotterdam Junction vicinity. *MABEE HOUSE*, S of Rotterdam Junction on NY 5S, (5-22-78) HABS.

Schenectady. *GENERAL ELECTRIC RESEARCH LABORATORY*, (5-15-75) NHL

Schenectady. *LANGMUIR, IRVING, HOUSE*, 1176 Stratford Rd., (1-7-76) NHL.

Schenectady. *NOTT MEMORIAL HALL, UNION COLLEGE*, Union College campus, (5-5-72) PH0040827

Schenectady. *SCHENECTADY CITY HALL AND POST OFFICE*, Jay St., (10-11-78)

Schenectady. *STOCKADE HISTORIC DISTRICT*, Roughly bounded by Mohawk River, railroad tracks, and Union St., (4-3-73) PH0040835

Schenectady vicinity. *DELLEMONT-WEMPLE FARM*, W of Schenectady on Wemple Rd., (10-25-73) PH0040819

Schenectady vicinity. *SEELEY FARMHOUSE*, 2 Freeman's Bridge Rd., (5-23-78)

schoharie county

Blenheim. *NORTH BLENHEIM HISTORIC DISTRICT*, Both sides of NY 30, beside Schoharie Creek, (12-31-74) PH0073661

Blenheim vicinity. *LANSING MANOR HOUSE*, 2 mi. S of North Blenheim on NY 30, (5-25-73) PH0040843

Breakabeen. *BREAKABEEN HISTORIC DISTRICT*, (12-31-74) PH0073563

Cobleskill. *COBLESKILL HISTORIC DISTRICT*, irregular pattern along Washington Ave., Main, Grand, and Elm Sts., (9-18-78)

Cobleskill vicinity. *BRAMANVILLE MILL*, E of Cobleskill on Caverns Rd., (8-27-76)

North Blenheim. *OLD BLENHEIM BRIDGE*, NY 30 over Schoharie Creek, (10-15-66) PH0046591 NHL; G.

Schoharie. *OLD LUTHERAN PARSONAGE*, Adjacent to Spring St. in Lutheran Cemetery, (6-19-72) PH0040851 G.

Schoharie. *SCHOHARIE VALLEY RAILROAD COMPLEX*, Depot Lane, (4-26-72) PH0042803 G.

Sharon Springs. *AMERICAN HOTEL*, Main St., (9-9-75)

schuyler county

Montour Falls. *MONTOUR FALLS HISTORIC DISTRICT*, Main and Genesee Sts., (8-31-78)

Tyrone vicinity. *LAMOKA*, (10-15-66) PH0132446 NHL.

Watkins Glen. *SCHUYLER COUNTY COURTHOUSE COMPLEX*, Franklin St., (6-5-74) PH0040860

seneca county

Fayette vicinity. *ROSE HILL*, W of Fayette on NY 96A, (2-6-73) PH0040878 HABS.

Ovid. *SENECA COUNTY COURTHOUSE COMPLEX AT OVID*, NY 414, (12-12-76)

Seneca Falls. *FALL STREET-TRINITY LANE HISTORIC DISTRICT*, Off NY 414 at Van Cleef Lake, (2-11-74) PH0043222

Seneca Falls. *STANTON, ELIZABETH CADY, HOUSE*, 32 Washington St., (10-15-66) PH0046485 NHL.

Willard. *WILLARD ASYLUM FOR THE CHRONIC INSANE*, Willard State Psychiatric Center, (3-7-75)

st. lawrence county

ADIRONDACK FOREST PRESERVE, *Reference—see Clinton County* (1-2-74)

Canton. *HERRING-COLE HALL, ST. LAWRENCE UNIVERSITY*, St. Lawrence University campus, (5-1-74) PH0040673

Canton. *RICHARDSON HALL, ST. LAWRENCE UNIVERSITY*, St. Lawrence University campus, (5-1-74) PH0040681

Canton. *VILLAGE PARK HISTORIC DISTRICT*, Both sides of Main and Park Sts., and Park Pl., (5-6-75)

Chase Mills. *CHASE MILLS INN*, Mein and Townline Rds., (11-29-78)

Massena vicinity. *ROBINSON BAY ARCHEOLOGICAL DISTRICT*, N of Massena at Robinson Bay, (9-13-77)

Ogdensburg. *NEW YORK STATE ARMORY (THE ARSENAL)*, 100 Lafayette St., (12-12-76)

Ogdensburg. *U.S. CUSTOMSHOUSE*, 127 N. Water St., (10-9-74) PH0031674

Ogdensburg. *U.S. POST OFFICE*, 431 State St., (8-16-77)

steuben county

Corning. *JENNING'S TAVERN (PATTERSON INN)*, 59 W. Pulteney St., (9-20-73) PH0040886

Corning. *MARKET STREET HISTORIC DISTRICT*, Market St. from Chestnut St. to Wall St., (3-1-74) PH0043231

Hornell. *HORNELL PUBLIC LIBRARY*, 64 Genesee St., (2-24-75)

suffolk county

LONG ISLAND WIND AND TIDE MILLS THEMATIC RESOURCES, *Reference—see individual listings for: East Hampton*, Gardiners Island Windmill, Hayground Windmill, Hook Windmill, Wainscott Windmill; *Huntington*, Van Wyck-Lefferts Tide Mill; *Shelter Island*, Shelter Island Windmill; *and Southampton*, Beebe Windmill, *and* Windmill at Water Mill. *Also see Nassau County.*

Cutchogue. *OLD HOUSE, THE*, NY 25, (10-15-66) PH0132721 NHL; HABS.

Cutchogue vicinity. *FORT CORCHAUG SITE*, (1-18-74) PH0031852

East Hampton. *EAST HAMPTON VILLAGE DISTRICT*, Bounded by Main St. and James and Woods Lanes, (5-2-74) PH0031836

East Hampton. *GARDINERS ISLAND WINDMILL*, (Long Island Wind and Tide Mills Thematic Resources) On Gardiners Island, (12-27-78) (also see nassau county)

East Hampton. *HAYGROUND WINDMILL*, (Long Island Wind and Tide Mills Thematic Resources) At Windmill Lane, (12-27-78) (also see nassau county)

East Hampton. *HOOK WINDMILL*, (Long Island Wind and Tide Mills Thematic Resources), (12-27-78) (also see nassau county)

East Hampton. *WAINSCOTT WINDMILL*, (Long Island Wind and Tide Mill's Thematic Resources) On Georgica Association grounds, (12-27-78) (also see nassau county)

East Hampton, Long Island. *MORAN, THOMAS, HOUSE*, Main St., (10-15-66) PH0132659 NHL.

East Hampton vicinity. *MONTAUK POINT LIGHTHOUSE*, Montauk Point, (7-7-69) PH0031887

Great River vicinity. *CUTTING, BAYARD, ESTATE (WESTBROOK)*, N of Great River on NY 27, (10-2-73) PH0031810

Great River vicinity. *SOUTHSIDE SPORTSMENS CLUB DISTRICT*, NE of Great River, off NY 27, (7-23-73) PH0031917

Huntington. *EATONS NECK LIGHT*, Eatons Neck Point at Huntington Bay and Long Island Sound off NY 25A, (4-3-73) PH0031828

Huntington. *VAN WYCK-LEFFERTS TIDE MILL*, (Long Island Wind and Tide Mills Thematic Resources) 2 mi. NE of Mill and Southdown Rds., (12-27-78) (also see nassau county)

Huntington vicinity. *LLOYD, JOSEPH, HOUSE*, NW of Huntington on Lloyd Harbor Rd., (11-7-76)

Mastic. *FLOYD, WILLIAM, HOUSE*, 20 Washington Ave., (4-21-71)

Mattituck. *GILDERSLEEVE, ANDREW, OCTAGONAL BUILDING*, Main Rd. and Love Lane, (8-19-76)

Miller Place. *MILLER PLACE HISTORIC DISTRICT*, N. Country Rd., (6-17-76)

Montauk vicinity. *MONTAUK ASSOCIATION HISTORIC DISTRICT*, E of Montauk off NY 27 on DeForest Rd., (10-22-76)

Orient. *ORIENT HISTORIC DISTRICT*, NY 25, (5-21-76)

Sag Harbor. *SAG HARBOR VILLAGE DISTRICT*, (7-20-73) PH0031895

Saint James. *SAINT JAMES DISTRICT*, On NY 25A, (7-20-73) PH0031909

Shelter Island. *SHELTER ISLAND WINDMILL*, (Long Island Wind and Tide Mills Thematic Resources) N of Manwaring Rd., (12-27-78) (also see nassau county)

Smithtown. *FIRST PRESBYTERIAN CHURCH*, 175 E. Main St., (12-23-77)

Smithtown. *HALLIOCK INN*, 263 E. Main St., (8-7-74) PH0031861

Southampton. *BEEBE WINDMILL*, (Long Island Wind and Tide Mills Thematic Resources) SE corner of Ocean Rd. and Hildreth Ave., (12-27-78) (also see nassau county)

Southampton. *WINDMILL AT WATER MILL*, (Long Island Wind and Tide Mills Thematic Resources) NY 27 and Halsey Lane, (12-27-78) (also see nassau county)

St. James vicinity. *BOX HILL ESTATE*, NW of St. James on Moriches Rd., (12-4-73) PH0031801 G.

St. James vicinity. *MILLS POND DISTRICT*, W of St. James on NY 25A, (8-1-73) PH0031879

Stony Brook. *MOUNT, WILLIAM SYDNEY, HOUSE*, Gould Rd. and NY 25, (10-15-66) PH0132667 NHL.

West Bay Shore. *SAGTIKOS MANOR*, Montauk Hwy. (NY 27A), (11-21-76)

Westhampton. *JAGGER HOUSE*, Old Montauk Hwy., (12-12-78)

sullivan county

DELAWARE AND HUDSON CANAL, *Reference—see Orange County* (1-2-74)

Bronx, Public School 15, (12-10-81)

New York, Coney Island Fire Station Pumping Station (12-8-81)

Brookhaven, Smith Estate (12-10-81)

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Otero County

Sacramento vicinity, *Circle Cross Ranch Headquarters,* SW of Sacramento (11-17-80)

Valencia County

Belen, *Belen Hotel,* 200 Becker Ave. (11-12-80)

NEW YORK

STONE HOUSES OF BROWNVILLE THEMATIC RESOURCES. Reference—individual listings under Jefferson County.

Albany County

Albany, *Knickerbocker and Armink Garages,* 72—74 (11-28-80)

Bronx County

Cayuga County

Aurora, *Aurora Village-Wells College Historic District,* NY 90 (11-19-80)

Chenango County

Oxford, *Burr, Theodore, House,* Fort Hill Sq. (9-11-81)

Dutchess County

Hyde Park, *Hyde Park Railroad Station,* River Rd. (9-11-81)

Erie County

Buffalo, *Dorsheimer, William, House,* 434 Delaware Ave. (11-21-80)

Buffalo, *Lafayette High School,* 370 Lafayette Ave. (12-3-80)

Franklin County

Paul Smiths, *Smith's, Paul, Hotel Store,* Paul Smith's College Campus (12-3-80)

Fulton County

Johnstown, *Fulton County Jail (Tryon County Jail)* Perry and Montgomery Sts. (10-19-81)

Greene County

Athens, *VILLAGE OF ATHENS MULTIPLE RESOURCE AREA.* This area includes: *Athens Lower Village Historic District,* Roughly bounded by Hudson River, NY 385, Vernon and Market Sts.; *Brick Row Historic District,* Off NY 385; *Stranahan-DelVecchio House,* N. Washington St.; *Van Loon, Albertus, House,* N. Washington St.; *Zion Lutheran Church,* N. Washington St. (11-28-80)

Jefferson County

Brownville, *Archer, William, House (Stone Houses of Brownville Thematic Resources)* 112 Washington St. (11-19-80)

Brownville, *Brown, Gen. Jacob, Mansion (Stone Houses of Brownville Thematic Resources)* Brown Blvd. (11-19-80)

Brownville, *Brownville Hotel (Stone Houses of Brownville Thematic Resources)* Brown Blvd. and W. Main St. (11-19-80)

Brownville, *Vogt House (Stone Houses of Brownville Thematic Resources)* 110 Main St. (11-19-80)

Brownville, *Walrath, Arthur, House (Stone Houses of Brownville Thematic Resources)* 114 Corner Pike (11-19-80)

Kings County

Brooklyn, *Park Slope Historic District,* Roughly bounded by Prospect Park West, Berkeley Pl., 15th St., 6th, 7th and Flatbush Aves., (11-21-80)

Brooklyn, Public School 65K; (12-10-81)

Brooklyn, Public School 108, (12-10-81)

Brooklyn, Public School 111 and Public School 9 Annex

New York, *Parachute Jump,* Coney Island (9-2-80)

Livingston County

North Bloomfield, *North Bloomfield School,* 7840 Martin Rd. (5-28-81)

Madison County

Oneida, *Cottage Lawn,* 435 Main St. (11-6-80)

Monroe County

Riga, *Riga Academy,* 3 Riga-Mumford Rd. (11-21-80)

New York County

Liberty Island, *Statue of Liberty National Monument, Ellis Island and Liberty Island* (10-15-66) (also in Hudson County, NJ)

New York, *Houses at 83 and 85 Sullivan Street,* 83-85 Sullivan St. (11-17-80)

New York, *New York Public Library, Hamilton Grange Branch,* 503 and 505 W. 145th St. (7-23-81)

New York, *Stuyvesant Square Historic District,* Roughly bounded by Nathan D. Perlman Pl., 3rd Ave., E. 18th and E. 15th Sts. (11-21-80)

New York, Public School 157 (12-10-81)

Onondaga County

Syracuse, *Central Technical High School,* 700-745 S. Warren St. (4-9-81)

Orange County

Goshen, *Church Park Historic District,* Park Pl., Main and Webster Sts. (11-17-80)

Montgomery, *MONTGOMERY VILLAGE MULTIPLE RESOURCE AREA.* This area includes: *Bridge Street Historic District; Union Street-Academy Hill Historic District; Crabtree-Patchett House,* 232 Ward St.; *Miller, Johannes, House,* 272 Union St.; *Montgomery Worsted Mills,* Factory St. (11-21-80)

Newburgh, *New York State Armory,* Broadway and Johnson St. (6-18-81)

Otsego County

Cooperstown, *Cooperstown Historic District,* NY 28, NY 80 and Main St. (11-18-80)

Oneonta, *Stonehouse Farm,* E of Oneonta on NY 7 (11-19-80)

Oneonta vicinity, *Fortin Site,* (11-28-80)

Queens County

Rockaway Point vicinity, *Riis, Jacob, Park Historic District,* Rockaway Beach Blvd. (6-17-81)

Rensselaer County

Hoosick Falls, *Hoosick Falls Historic District,* Roughly bounded by RR tracks, Church, Main and Elm Sts. (12-3-80)

Richmond County

Staten Island, *St. Paul's Memorial Church and Rectory,* 225 St. Paul's Ave. (11-21-80)

Schenectady County

Schenectady, *General Electric Realty Plot,* Roughly bounded by Oxford Pl., Union Ave., Nott St., Lenox and Lowell Rds. (11-18-80)

Schoharie County

Fulton, *Shafer Site,* (11-28-80)

Seneca County

Covert, *Covert Historic District,* NY 96 (11-21-80)

Steuben County

Rheims, *Pleasant Valley Wine Company,* SR 88 (11-18-80)

Suffolk County

Bay Shore vicinity, *Fire Island Light Station,* Robert Moses Causeway (9-11-81)

Huntington, *Fort Golgotha and the Old Burial Hill Cemetery,* Main St. and Nassau Rd. (3-2-81)

Mastic Beach, *Floyd, William, House (Old Mastic)* 20 Washington Ave. (10-15-80)

Tioga County

Owego, *Owego Central Historic District,* North Ave., Park, Main, Lake, Court, and Fronts Sts. (12-3-80)

Ulster County

Cragsmoor vicinity, *Chetolah (George Inness, Jr., Estate),* S of Cragsmoor on Vista Maria Rd. (10-21-80)

Westchester County

Katonah, *Jay, John, Homestead,* Jay St. (5-29-81) NHL

Peekskill vicinity, *Van Cortlandt Upper Manor House,* Oregon Rd. (4-2-81)

Scarsdale, *Wayside Cottage,* 1039 Post Rd. (5-1-81)

Yorktown Heights, *Yorktown Heights Railroad Station,* Commerce St. (3-19-81)

Wyoming County

North Java, *Arcade and Attica Railroad* (11-17-80)

NORTH CAROLINA

Beaufort County

Belhaven, *Belhaven City Hall,* Main St. (1-27-81)

Bertie County

Windsor vicinity, *King House,* NW of Windsor off NC 308 (6-26-71)

Brunswick County

Southport, *Southport Historic District,* Roughly bounded by Cape Fear River, Rhett, Bay, Short and Brown Sts. (11-25-80)

Chatham County

Pittsboro vicinity, *Hadley House and Grist Mill,* NW of Pittsboro on SR 2165 (11-25-80)

Cumberland County

Fayetteville, *Confederate Breastworks,* Raleigh Rd. and U.S. 401 (10-7-81)

Currituck County

Poplar Branch vicinity, *Baum Site (31CK9),* N of Poplar Branch (12-8-80)

Davidson County

Lexington vicinity, *Sowers, Philip, House,* SR 1162 (11-25-80)

Thomasville vicinity, *Brummell's Inn,* N of Thomasville (11-25-80)

Thomasville, *Thomasville Railroad Passenger Depot,* W. Main St. (7-9-81)

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federal register

Tuesday
March 1, 1983

Part II

Department of the Interior

National Park Service

National Register of Historic Places; Annual Listing of Historic Properties

New York State National
Register Listings: 1982

Oswego County

Oswego, *Franklin Square Historic District,* Roughly bounded by 3rd, 6th, Van Buren, and Bridge Sts. (08/04/82)
Schroeppel, *Schroeppel House,* Morgan Rd. (09/09/82)

Putnam County

Philipstown vicinity, *Old Albany Post Road,* US 9 (07/08/82)

Queens County

Queens, *Marine Air Terminal,* La Guardia Airport (07/09/82)

Richmond County

Rossville vicinity, *Sandy Ground Historic Archeological District (A085-01-2258-D03),* (09/23/82)
Staten Island, *Brighton Heights Reformed Church,* 320 St. Mark's Pl. (06/03/82)
Staten Island, *LaTourette House,* Richmond Hill (03/05/82)
Staten Island, *Ward, Caleb T., Mansion,* 141 Nixon Ave. (07/28/82)
Tottenville vicinity, *Ward's Point Conservation Area (A085-01-0030),* SW of Tottenville at Authur Kill and Hylan Blvd. (09/29/82)

Rockland County

Upper Nyack, *Upper Nyack Firehouse,* 330 N. Broadway (09/23/82)

Saratoga County

Ballston Spa, *Union Mill Complex,* NY Route 50, Milton Ave. (06/17/82)

Seneca County

Lodi, *Lodi Methodist Church,* S. Main and Grove Sts. (05/06/82)

St. Lawrence County

Brasher Falls, *Dr. Buck-Stevens House,* W. Main St. (05/17/82)
Morley, *Harrison Grist Mill,* NY345 (09/16/82)
Morristown, *Ford, Jacob, House (Morristown Village MRA),* Northumberland St. (09/02/82)
Morristown, *Land Office (Morristown Library) (Morristown Village MRA),* Main St. (09/02/82)
Morristown, *Miller, Paschal House (Morristown Village MRA),* Main and Gouveneur Sts. (09/02/82)
Morristown, *Morristown Schoolhouse (Morristown Village MRA),* Columbia St. (09/02/82)
Morristown, *Stocking, Samuel, House (Morristown Village MRA),* 83 Gouveneur St. (09/02/82)
Morristown, *Stone Windmill (Morristown Village MRA),* Morris St. (09/02/82)
Morristown, *United Methodist Church (Morristown Village MRA),* Gouveneur St. (09/02/82)
Morristown, *Wright's Stone Store (Morristown Village MRA),* Main St. (09/02/82)

Suffolk County

Brookhaven vicinity, *Smith Estate,* N of Brookhaven at Longwood and Smith Rds. (12/10/81)
Fort Salonga, *Fort Salonga (NYSDHP Unique Site No. A103-08-0036),* (05/21/82)

Tompkins County

Ithaca, *St. James AME Zion Church,* 116-118 Cleveland Ave. (07/22/82)

Ulster County

Bruynswick vicinity, *Reformed Church of Shawangunk Complex,* Hoagerburgh Rd. (06/03/82)
Gardiner vicinity, *Tuthilltown Gristmill,* Albany Post Rd. (06/14/82)
Libertyville vicinity, *DuBoris, Hendrikus, House,* 600 Albany Post Rd. (07/08/82)
Village of Saugerties, *Main-Partition Streets Historic District,* Roughly bounded by Main, Partition, Market and Jane Sts. (07/08/82)

Westchester County

Port Chester, *Bush-Lyon Homestead,* John Lyon Park, King St. (04/22/82)
Rye City, *Knapp, Timothy, House and Milton Cemetery,* 265 Rye Beach Ave. and Milton Rd. (06/14/82)
Tarrytown, *Foster Memorial A.M.E. Zion Church,* 90 Wildey St. (06/03/82)
Tarrytown, *Patriot's Park,* US 9 (06/14/82)
White Plains, *Friedlander, Leo, Studio,* 825 W. Hartsdale Rd. (07/29/82)
Yonkers, *Hart, Eleazer, House,* 243 Bronxville Rd. (07/29/82)
Yonkers, *St. John's Protestant Episcopal Church,* One Hudson St. (07/29/82)
Yonkers, *Yonkers Water Works,* Roughly bounded by Saw Mill River and Grassy Sprain Rds., and Gilmare Dr. (07/21/82)

NORTH CAROLINA

Alamance County

Burlington, *Menagerie Carousel,* Burlington City Park, S. Main St. (06/30/82)
Haw River, *Holt, Charles T., House,* 228 Holt St. (06/01/82)
Mebane vicinity, *White Furniture Company,* E. Center and N. 5th Sts. (07/29/82)

Alleghany County

Whitehead vicinity, *Crouse, Elbert, Farmstead,* S of Whitehead on Blue Ridge Parkway (07/29/82)

Beaufort County

Washington vicinity, *Rosedale,* NW of Washington off SR 1407 (04/29/82)

Bertie County

Lewiston, *St. Frances Methodist Church,* Off NC 308 (04/29/82)
Colerain vicinity, *Garrett-White House,* (06/28/82)
Merry Hill vicinity, *Hermitage, The,* N of Merry Hill (06/08/82)
Merry Hill vicinity, *Scotch Hall,* E of Merry Hill on SR 1511 (04/29/82)
Roxobel vicinity, *Oaklana,* NE of Roxobel off SR 1249 (04/15/82)
Roxobel, *Pineview,* Off SR 1249, (06/28/82)
Windsor vicinity, *Elmwood,* W of Windsor on SR 1101 (06/08/82)
Windsor vicinity, *Liberty Hall,* Off SR 1108 (06/08/82)
Windsor, *Freeman Hotel,* York and Granville Sts. (09/09/82)
Windsor, *Rosefield,* 212 W. Gray St. (06/28/82)

Buncombe County

Asheville, *Demens-Rumbough-Crawley* [illegible] *House,* 31 Park Ave. (06/01/82)
Asheville, *Reynolds, Dr. Carl V., House,* [illegible] Edgemont Rd. (06/19/82)
Fairview vicinity, *Lanning, John A., House,* W[illegible] of Fairview on SR 3128 (09/23/82)

Cabarrus County

Mount Pleasant, *Lentz Hotel,* College St. (06/14/82)

Camden County

Belcross vicinity, *Grandy, Caleb, House,* Off SR 1145 (04/29/82)

Chatham County

Farrington vicinity, *Stone, Joseph B., House,* SR 1008 (06/01/82)
Pittsboro vicinity, *Aspen Hall,* W of Pittsboro on US 64 (07/29/82)

Chowan County

Smalls Crossroads vicinity, *Cullins-Baker House,* NC 32 (04/29/82)

Clay County

Hayesville vicinity, *Spikebuck Town Mound and Village Site,* (06/17/82)

Cleveland County

Boiling Springs, *Hamrick, E. B., Hall,* Gardner-Webb College campus (07/12/82)
Polville vicinity, *Lattimore John, House,* NW of Polkville on SR 1372 (06/28/82)
Shelby, *Masonic Temple Building,* 203 S. Washington St. (07/15/82)

Cumberland County

Fayetteville, *Confederate Breastworks,* 2300 Ramsey St. (10/07/81)
Fayetteville, *St. Joseph's Episcopal Church,* Ramsey and Moore Sts. (06/01/82)

Durham County

Durham, *Bullington Warehouse,* 500 N. Duke st. (06/30/82)
Durham, *Greystone,* 618 Morhead Ave. (06/01/82)

Edgecombe County

Pinetops vicinity, *Vinedale,* SW of NC 42/43 and SR 1122 (07/15/82)
Tarboro vicinity, *Cedar Lane,* N of Tarboro off NC 44 (04/15/82)

Forsyth County

Winston-Salem, *Gilmer Building,* 416-424 W. 4th St. (07/29/82)
Winston-Salem, *Rogers, James Mitchell, House,* 102 S. Cherry St. (07/15/82)

Gates County

Gates vicinity, *Freeman House,* N of Gates on US 13 (09/23/82)

Guilford County

Colfax vicinity, *Shaw-Cude House,* Off SR 2010 (06/01/82)
Greensboro vicinity, *Caldwell, David, Log College Site,* Between Cornwallis Dr., Hobbs and Holden Rds. (01/13/82)
Greensboro, *Dixon-Leftwich-Murphy House,* 507 Church St. (09/23/82)

TABLE 2.—*Summary of the rock units and their water-bearing properties, Long Island, N.Y.*

[After McClymonds and Franke, 1971]

System	Series	Geologic unit	Hydrogeologic unit	Approximate maximum thickness (feet)	Depth from land surface to top (feet)	Character of deposits	Water-bearing properties
Quaternary	Holocene	Artificial fill, salt marsh deposits, stream alluvium, and shoreline deposits.	Holocene deposits	50	0	Sand, gravel, clay, silt, organic mud, peat, loam, and shells. Colors are gray, brown, green, black, and yellow. Holocene artificial-fill deposits of gravel, sand, clay, and rubbish.	Permeable sandy beds beneath barrier beaches yield fresh water at shallow depths, brackish to salty water at greater depth. Clay and silt beneath bays retard salt-water encroachment and confine underlying aquifers. Stream-flood-plain and marsh deposits may yield small quantities of water, but are generally clayey or silty and much less permeable than underlying upper glacial aquifer.
Quaternary	Pleistocene	Upper Pleistocene deposits	Upper glacial aquifer	600	0-50	Till (mostly along north shore and in moraines) composed of clay, sand, gravel, and boulders. Forms Harbor Hill and Ronkonkoma terminal moraines. Outwash deposits (mostly between and south of terminal moraines, but also interlayered with till) consist of quartzose sand, fine to very coarse, and gravel, pebble to boulder sized. Glaciolacustrine deposits (mostly in central and eastern Long Island) and marine clay (locally along south shore) consist of silt, clay, and some sand and gravel layers; includes "20-foot clay" in southern Nassau County and Queens County. Colors are mainly gray, brown, and yellow; silt and clay locally are grayish green. Contains shells and plant remains, generally in finer grained beds; also contains Foraminifera. Contains chlorite, biotite, muscovite, hornblende, olivine, and feldspar as accessory minerals; "20-foot clay" commonly contains glauconite.	Till is poorly permeable; commonly causes perched-water bodies and impedes downward percolation of water to underlying beds. Outwash deposits are moderately to highly permeable; specific capacities of wells tapping them range from about 10 to more than 200 gpm per foot of drawdown. Good to excellent infiltration characteristics. Glaciolacustrine and marine clay deposits are mostly poorly permeable, but locally have thin moderately permeable layers of sand and gravel; generally retard downward percolation of ground water. Contains fresh water, except near the shorelines. Till and marine deposits locally retard salt-water encroachment.
		—Unconformity?—					
		Gardiners Clay	Gardiners Clay	300	50-400	Clay, silt, and few layers of sand and gravel. Colors are grayish green and brown. Contains marine shells, Foraminifera, and lignite; also glauconite, locally. Altitude of top generally is 50-60 ft below mean sea level. Occurs in Kings and Queens Counties, southern Nassau County, and Suffolk County; similar clay occurs in buried valleys near north shore.	Poorly permeable; constitutes confining layer for underlying Jameco aquifer. Locally, sand layers yield small quantities of water.
		—Unconformity?—					
		Jameco Gravel	Jameco aquifer	300	50-580	Sand, fine to very coarse, and gravel to large-pebble size; few layers of clay and silt. Gravel is composed of crystalline and sedimentary rocks. Color is mostly dark brown. Contains chlorite, biotite, muscovite, hornblende, and feldspar as accessory minerals. Occurs in Kings and Queens Counties, and southern Nassau County; similar deposits occur in buried valleys near north shore.	Moderately to highly permeable; contains mostly fresh water, but brackish water and water with high iron content locally in southeastern Nassau County and southern Queens County. Specific capacities of wells in the Jameco range from about 30 to 150 gpm per foot of drawdown.
		—Unconformity—					
Tertiary(?)	Pliocene(?)	Mannetto Gravel	(Commonly included with upper glacial aquifer.)	300	0-120	Gravel, fine to coarse, and lenses of sand; scattered clay lenses. Colors are white, yellow, and brown. Occurs only near Nassau-Suffolk County border near center of island.	Highly permeable, but occurs mostly above water table. Excellent infiltration characteristics.
		—Unconformity—					
Cretaceous		Magothy Formation	Magothy aquifer	1,100	0-600	Sand, fine to medium, clayey in part; interbedded with lenses and layers of coarse sand and sandy and solid clay. Gravel is common in basal 50-200 ft. Sand and gravel are quartzose. Lignite, pyrite, and iron oxide concretions are common; muscovite, magnetite, rutile, and garnet are accessory minerals. Colors are gray, white, red, brown, and yellow.	Most layers are poorly to moderately permeable; some are highly permeable locally. Specific capacities of wells in the Magothy generally range from 1 to about 30 gpm per foot of drawdown, rarely are as much as 80 gpm per ft. Water is unconfined in uppermost parts, elsewhere is confined. Water is generally of excellent quality but has high iron content locally along north and south shores. Constitutes principal aquifer for public-supply wells in western Long Island, except Kings County where it is mostly absent. Has been invaded by salty-ground water locally in southwestern Nassau County and southern Queens County, and in small areas along north shore.

streams and glaciers so that the Pleistocene deposits lie on an irregular Cretaceous surface, and in places the Pleistocene deposits fill valleys cut by preglacial and glacial streams. These valleys have been fairly well defined in Kings and Queens Counties and along the northern margin of the island eastward to the middle of Suffolk County. In eastern Suffolk County, however, data on the contact between the Pleistocene and the Cretaceous are very sparse.

The upper surface of the Cretaceous deposits is above sea level in a large area in northern Nassau and western Suffolk Counties, and in all but a few small areas, the Pleistocene deposits cover the Cretaceous deposits throughout Long Island. Pertinent information concerning the principal hydrogeologic units within the ground-water reservoir are briefly summarized in table 2.

Ground water in the uppermost part of the zone of saturation on Long Island (mainly in the upper glacial aquifer, but locally also in the Magothy aquifer) is generally under water-table conditions. Artesian conditions predominate in most of the other parts of the ground-water reservoir of Long Island, where the saturated deposits are overlain and confined by silty and clayey layers of low hydraulic conductivity. The hydraulic head in the confined aquifers ranges from several feet below the water table to nearly 20 feet above it. At places along the north and south shores and on the barrier beaches, the head in the Lloyd aquifer is high enough to cause some wells which penetrate this aquifer to flow.

In addition to the Raritan clay, which confines water in the Lloyd aquifer, the other major well-defined confining layer in the ground-water reservoir is the Gardiners Clay. This unit locally confines water in the Jameco and Magothy aquifers. Numerous clayey and silty layers in the Magothy aquifer and clay layers in the glacial deposits also are significant confining layers. Normally, the degree of confinement in the Magothy aquifer increases with depth as more and more clayey layers intervene between the deep zone and the water table.

BOUNDARIES OF THE FRESH GROUND-WATER RESERVOIR

The boundaries of the fresh ground-water reservoir are the water table, the fresh-salt water interface, and the bedrock surface. The estimated average position of the water table under natural conditions is shown in figure 9. The position of the contours is based on a map of the water table in Kings, Queens, and Nassau Counties in 1903 (prepared by Veatch in 1906), and on later water-table maps of Suffolk County. Major features of this map are the two areas of highest ground-water altitude (represented by closed 80-ft and 60-ft contours) which extend approximately westward in the north-central parts of Nassau and Suffolk Counties. Also noteworthy are the steep water-level gradients near the north shore of Long Island compared to the gradients near the south shore.

The water table, which is the upper boundary of the ground-water reservoir, is a dynamic (moveable) feature. Present information indicates that recharge to the water table occurs throughout virtually all of Long Island. Therefore, the water table is not, from the point of view of potential theory, a stream surface. It is instead a surface characterized by a constantly varying potential which is equal to the altitude of the water table at any point. Because the water table on Long Island is largely a recharging potential boundary of the ground-water reservior, streamlines flow perpendicularly from the water table into the ground-water reservoir. Locally, as near the shorelines where ground water is lost by evapotranspiration, the water table is a discharging potential boundary.

The ground-water reservoir is bordered laterally by a second moveable boundary—the fresh-salt water interface. The position of this interface (or these interfaces) is fairly accurately known only in southwestern Nassau and southeastern Queens Counties as a result of an intensive investigation by Lusczynski and Swarzenski (1966). A north-south cross section through the ground-water reservoir in this area (fig. 10) shows three separate salt-water wedges—a shallow wedge in the glacial aquifer and intermediate and deep wedges in the Magothy aquifer. Furthermore, a fourth wedge exists in the Lloyd aquifer somewhere seaward of the barrier beaches.

The occurrence of fresh ground water in the Lloyd aquifer below salty ground water in the lower part of the Magothy aquifer has never been adequately explained. However, this occurrence must be related in some way to the relatively impermeable Raritan clay overlying the Lloyd aquifer. At least four separate wedges of salty ground water with relative positions approximately as indicated in figure 10 probably occur for a considerable distance eastward from western Nassau County (on the order of tens of miles) along the south shore of Long Island.

Very scanty information indicates that the Lloyd aquifer and the deep Magothy aquifer contain salty ground water beneath the Forks of Long Island. The fresh ground water beneath the Forks occurs in a lens ranging in thickness from a few feet to several hundred feet.

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LAUMAN LABORATORIES, INC.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305

ENVIRONMENTAL ANALYSIS

REPORT OF CHEMICAL ANALYSES

643-7890

DATE June 30, 1976

TO Mr. Latimer
47 Oswego Place
North Babylon, New York

SOURCE OF SAMPLE Private Well

COLLECTED 6/24/76 RECEIVED 6/24/76 REPORTED 6/29/76

	SAMPLING POINT	TIME
1	Hose	
2		
3		
4		

	UNITS	1	2	3	4
TURBIDITY					
HYDROGEN ION CONCENTRATION	pH				
FREE CARBON DIOXIDE, AS CO_2	mg/l				
ALKALINITY P, AS $CaCO_3$	mg/l				
TOTAL ALKALINITY, AS $CaCO_3$	mg/l				
HARDNESS, TOTAL AS $CaCO_3$	mg/l				
CHLORIDES, AS Cl	mg/l				
IRON, AS Fe	mg/l				
MANGANESE, AS Mn	mg/l				
AMMONIA, FREE, AS N	mg/l				
NITRATES, AS N	mg/l				
SYNTHETIC DETERGENTS, AS MBAS	mg/l				
Total Chromium	mg/l	69.			
Hexavalent	mg/l	69.			

REMARKS

Hezavalent Chromium exceedes USPHS standards for potable water.

LAB. NO. C-14304

COLLECTED BY Client

LAUMAN LABORATORIES, INC.

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WOODWARD-CLYDE CONSULTANTS
RECORD OF TELEPHONE CONVERSATION

Date: 6 February 1986 Time: 3:15 Project No. [illegible]

Re: Jameco Industries, Inc.

Call Placed By: L. Wade Of: [illegible]

To: Jim Pim Of: Suffolk County Dept. of Health Services

Notes:

(516) 451-4633 -4634.

Spoke with Frank Randall because J. Pim was unavailable. Dave Obrig is inspector for site; is available during morning hours. Jameco is 2nd largest file (3' thick)

Some questions requiring answers:

- Well data - depth to water (10'-17' 1964; 60'-1980)
- Years of Operation
- Processing
- SPDES Violation(s)?
- Consent Order? Date?

Fence - yes

Security Guard - no

Israel Gajer - V.P.

Signed: L. Wade

U 35

common air contaminant. This material is usually caustic in its action on skin, mu mem or organic matter in general.

Fire Hazard: Dangerous; a very powerful oxidizing agent. In contact with organic matter or reducing agents, causes violent reactions with acetic acid, acetic anhydride, acetone, Al, NH_3, anthracene, As, C_6H_6, camphor, ClF_3, CrS, ethyl ether, dimethyl formamide, alcohol, glycerol, hydrocarbons, H_2S, CH_3OH, naphthalene, P, K, organic matter, potassium ferricyanide, pyridine, Se, Na, sodium amide, S, turpentine. [*19*]

Explosion Hazard: Upon intimate contact with powerful reducing agents, can cause violent explosions.

CHROMIC ACID SOLUTION. See also chromic acid.

CHROMIC ACID-TREATED FATS AND OILS.
THR = A (S) carc. [*14*]

CHROMIC ANHYDRIDE. See chromic acid.

CHROMIC BROMIDE. Hexagonal olive-green crystals. $CrBr_3$, mw: 291.76, mp: subl, d: 4.25 @ 0°.
THR = See chromium compounds and bromides.

CHROMIC CHLORIDE. See chromium chloride III.

CHROMIC CHROMATE. Cr_5O_{12}, mw: 452.
THR = An exper (+) neo and carc. [*3, 6*]

CHROMIC FLUORIDE. Rhombic green crystals. CrF_3, mw: 109.01, mp: >1000°, subl 1100–1200°, d: 3.8.
THR = See chromium compounds and fluorides. Violent reaction with (K + NH_4Br). [*19*]

CHROMIC NITRATE. Monoclinic brown crystals. $Cr(NO_3)_3 \cdot 7\frac{1}{2}H_2O$, mw: 373.15, mp: 100°.
THR = See chromium compounds and nitrates.

CHROMIC-*o*-PHOSPHATE. Violet crystals. $Cr(PO_4) \cdot 2H_2O$, mw: 183.02, d: 2.42 @ 32.5°.
THR = See chromium compounds and phosphates.

CHROMIC SESQUESULFIDE III. Violet or red powder. $Cr_2(SO_4)_3$, mw: 392.22, d: 3.012.
THR = See chromium compounds and sulfates.

CHROMIC SULFITE. Greenish-white crystals. $Cr_2(SO_3)_3$, mw: 344.22, mp: decomp, d: 2.2.
THR = See chromium compounds and sulfites.

CHROMITE ORE. Syn: *ferric chromate.*
THR = An exper (+) neo and carc. [*3, 6*] See chromium compounds.

CHROMITE ORE ROAST.
THR = An exper (+) carc. [*3, 6*] See chromium compounds.

CHROMITE ROAST LEACHED BROMIDE.
THR = An exper (+) carc. [*3, 6, 2*] See chromium compounds.

CHROMIUM. Very hard metal, cubic steel, gray crystals. Cr, at wt: 52.01, mp: 1890°, bp: 2200°, d: 7.2 vap. press: 1 mm @ 1616°.
THR = HIGH pulmonary toxicity. An exper (+) neo and carc. [*3, 6, 23, 95*] See also chromium compounds.
Radiation Hazard: For permissible levels, see Section 5, Table 5A.5. Artificial isotope ^{51}Cr, $T_{\frac{1}{2}}$ = 28 d, decays to stable ^{51}V via ec. Emits γ's of 0.32 MeV and x-rays.
Fire Hazard: Mod, in form of dust. Reacts violently with NH_4NO_3, H_2O_2, Li, NO, $KClO_3$, SO_2. [*19*]

CHROMIUM AMMINE NITRATES.
THR = May be heat- and impact-sensitive. [*19*]

CHROMIUM AMMINE PERCHLORATES.
THR = May be impact-sensitive. [*19*]

CHROMIUM BORIDE.
THR = See chromium compounds.

CHROMIUM CARBIDE.
THR = See chromium compounds.

CHROMIUM CARBONYL. Colorless crystals. $Cr(CO)_6$, mw: 220.07, mp: subl @ room temp., sinters @ 90°, decomp @ 130°, explodes @ 210°, bp: 151.0°, d: 1.77, vap. press: 1 mm @ 36.0°, vap. d: 7.6.
THR = VERY HIGH via iv route.

CHROMIUM CHLORIDE (II). Syn: *chromium dichloride.* $CrCl_2$, mw: 122.9.
Acute tox data: Oral LD_{50} (rat) = 1870 mg/kg. [*3*]
THR = MOD via oral route. See also chromium compounds.

CHROMIUM CHLORIDE (III). Syn: *chromic chloride.* $CrCl_3$, mw: 158.4, bp: 1300° (subl).
Acute tox data: Oral LD_{50} (rat) = 1870 mg/kg; dermal LD_{50} (guinea pig) = 202 mg/kg. [*3*]
THR = HIGH via dermal and MOD via oral routes. Violent reaction with Li. [*19*]

CHROMIUM CHLORIDE (IV). See chromium tetrachloride.

CHROMIUM COMPOUNDS. Chromic acid and its salts have a corrosive action on the skin and mu mem. The lesions are confined to the exposed parts, affecting chiefly the skin of the hands and forearms and the mu mem of the nasal septum. The characteristic lesion is a deep, penetrating ulcer, which, for the most part, does not tend to suppurate, and which is slow in healing.

Small ulcers, about the size of a matchhead or end of a lead pencil may be found, chiefly around the base of the nails, on the knuckles, dorsum of the hands and forearms. These ulcers tend to be clean, and progress slowly. They are frequently painless, even though quite deep. They heal slowly, and leave scars. On the mu mem of the nasal septum the ulcers are usually accom-

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anied by purulent discharge and crusting. If exposure ontinues, perforation of the nasal septum may result, ut produces no deformity of the nose. Chromate salts re recog carc of the lungs, nasal cavity and paranasal inus, also exper carc of the stomach and larynx. [*14*, *3*, *95*, *62*] Hexavalent compounds are said to be more oxic than the trivalent. [*61*, *60*, *26*, *62*, *63*, *64*] Eczematous dermatitis due to trivalent chromium compounds as been reported.

ROMIUM DIFLUORIDE. See chromous fluoride.

ROMIUM FLUORIDE (III). CrF_3, mw: 109.
HR = HIGH via oral and sc routes. See also chromium compounds. Corrosive.

ROMIUM FORMATE. Crystals. $Cr(CHO_2)_3$, mw: 87.1.
HR = See chromium compounds.

ROMIUM METAL AND ALLOYS OF IRON, ICKEL AND COBALT.
HR = A recog carc. [*3*, *6*] See chromium and nickel compounds.

ROMIUM MONOARSENIDE. Gray, hexagonal rystals. CrAs, mw: 126.92, d: 6.35, @ 16°.
HR = See arsenic and chromium compounds.
ire Hazard: See arsine.
xplosion Hazard: Dangerous; when heated to decomp or on contact with water, steam, acid or acid fumes, will react to produce toxic and flam vapors of arsine.

ROMIUM MONOBORIDE. Orthorhombic, silvery rystals. CrB, mw: 62.83, mp: 2760°, d: 6.17.
HR = See chromium and boron compounds.
ire Hazard: See boron hydrides.
xplosion Hazard: See boron hydrides.
isaster Hazard: Dangerous; on contact with water, steam, acid or acid fumes, will react to produce toxic and flam vapors of boron hydrides.

ROMIUM MONOPHOSPHIDE. Gray-black crystals. CrP, mw: 82.99, d: 5.7 @ 15°.
HR = See chromium compounds and phosphides.
ire Hazard: Dangerous; upon contact with moisture, acid or acid fumes, phosphine is evolved. See phosphine.
xplosion Hazard: See phosphides and phosphine.
isaster Hazard: Dangerous; see phosphides.

ROMIUM OXIDE III. Syn: *green chromium oxide*. r_2O_3, mw: 152.
HR = HIGH via inhal route. An exper (S) carc. [*3*, *6*] Reacts violently with ClF_3, glycerol, Li, OF_2. [*19*]

ROMIUM OXIDE IV. See chromic acid.

ROMIUM OXYCHLORIDE. Syn: *chromyl chloride*. Dark red liquid, musty burning odor. CrO_2Cl_2, mw: 154.92, mp: −96.5°, bp: 115.7°, d: 1.9145 @ 25°/4°, vap. press: 20 mm @ 20°.
Acute tox data: sc LD_{LO} (mice) = 545 mg/kg. [*3*]
THR = HIGH via sc and inhal routes. A strong irr. Hydrolyzes to form chromic and hydrochloric acids. See chromium compounds. Reacts violently with alcohol, ether, acetone, turpentine, NH_3, (Cl_2 + C), F_2, P, PCl_3, NaN_3, S, SCl. [*19*]
Disaster Hazard: Dangerous; see chlorides.

CHROMIUM-2,4-PENTANE DIONE DERIVATIVE. Syn: *acetylacetonate of chromium*. A solid. $Cr(C_5H_7O_2)_3$, mw: 349.33, mp: 216°, bp: 340°.
THR = See chromium compounds.

CHROMIUM PICRATE. Solid, $Cr[C_6H_2OH(NO_2)_3]_3$, mw: 739.4.
THR = See chromium compounds.
Fire Hazard: See nitrates.
Explosion Hazard: See explosives, high, and nitrates.
Disaster Hazard: See nitrates.

CHROMIUM POTASSIUM SULFATE. See chrome alum.

CHROMIUM SULFATE. See chromic sulfate.

CHROMIUM TETRACHLORIDE. $CrCl_4$, mw: 193.8.
THR = HIGH via inhal and oral routes. See chromium compounds and chlorides. Violent reaction with Na or K. [*19*]

CHROMIUM TETRAFLUORIDE. Brown, amorphous, hygroscopic mass, sol in water with hydrolysis. CrF_4, mw: 128.01, d: 2.89, mp: 200°, bp: approx 400° evolving intensely blue flame.
THR = HIGH irr via oral and inhal routes. See also chromium compounds.
Disaster Hazard: Dangerous; see fluorides.

CHROMIUM TRIAMMINO TETROXIDE. $Cr(NH_3)_3O_4$, mw: 167.
THR = See chromium compounds. Incandesces when heated. Detonates on impact. [*19*]

CHROMIUM TRIOXIDE. See chromic acid.

CHROMOMYCIN A3. Isolated from streptomyces griseus.
THR = HIGH via oral and inhal routes. An exper teratogen. [*3*]

CHROMOUS ACETATE. Red crystals. $Cr(C_2H_3O_2)_2$, mw: 170.10.
Acute tox data: Oral LD_{50} (rat) = 11,260 mg/kg. [*3*]
THR = LOW via oral and inhal routes. See chromium compounds.

CHROMOUS BROMIDE. White crystals. $CrBr_2$, mw: 211.84, mp: 842°, d: 4.356.
THR = See chromium compounds.

CHROMOUS CHLORIDE. See chromium chloride II.

Acute tox data: Oral LD_{50} (rat) = 140 mg/kg; oral LD_{50} (human) = 200 mg/kg. [*3*]
THR = HIGH via oral and inhal routes. Used as a fungicide. Also a trace mineral added to animal feed. [*109*] See copper compounds and chlorides. Can react violently with K, Na. [*19*]

COPPER-γ-CHLOROACETO ACETANILIDE. Solid. $Cu(C_8H_7 \cdot ClNO)_2$, mw: 400.7.
THR = See copper compounds, acetanilide and chlorides.

COPPER CHROMATE, BASIC. See cupric chromate, basic.

COPPER COMPOUNDS. As the sublimed oxide, copper may be responsible for one form of metal fume fever. Inhal of copper dust has caused, in animals, hemolysis of the red blood cells, deposition of hemofuscin in the liver and pancreas, and injury to the lung cells; injection of the dust has caused cirrhosis of the liver and pancreas, and a condition closely resembling hemochromatosis, or bronzed diabetes. However, considerable trial exposure to copper compounds has not resulted in such disease.

As regards local effect, copper chloride and sulfate have been reported as causing irr of the skin and conjunctivae which may be on an allergic basis (Section 9). Cuprous oxide is irr to the eyes and upper respiratory tract. Discoloration of the skin is often seen in persons handling copper, but this does not indicate any actual injury from copper. There is an excess of cancer cases in the Cu smelting industry. [*102*]

In man the ingestion of a large quantity of copper sulfate has caused vomiting, gastric pain, dizziness, exhaustion, anemia, cramps, convulsions, shock, coma and death. Symptoms attributed to damage to the nervous system and kidney have been recorded, jaundice has been observed and, in some cases, the liver has been enlarged. Deaths have been reported to have occurred following the ingestion of as little as 27 g of the salt, while other victims have recovered after having taken much larger amounts, up to 120 g. Many copper-containing compounds are used as fungicides. Many Cu salts form highly unstable acetylides. Those formed in basic solutions from (Cu^{+} salts + C_2H_2) are less stable than those formed from Cu^{++} salts. (Cu salts + hydrazine) react strongly, and with nitro-methane are explosive. [*19*]

COPPER-8-CUNILATE.
THR = See copper compounds.

COPPER CYANIDE. Syn: *cupric cyanide*. Yellowish-green powder. $Cu(CN)_2$, mw: 115.61, mp: decomp before melting.
Acute tox data: ip LD_{LO} (rat) = 50 mg/kg. [3
THR = HIGH via ip route. See cyanides and compounds.

COPPER DIAZO AMINO BENZENE. Orang tals, insol in water, sol in benzene. CuN_3(C mw: 259.8, mp: 270° (decomp).
THR = See copper compounds.

COPPER DICHLOROBENZOATE. Syn: *CDC*
THR = A toxic material. See copper comp Used as a fungicide.
Disaster Hazard: Dangerous; see chlorides.

COPPER DIMETHYL DITHIOCARBAMAT
Acute tox data: ip LD_{LO} (rat) = 25 mg/kg. [3]
THR = HIGH via ip route. See carbamates an per compounds.
Disaster Hazard: Dangerous; when heated to de emits toxic fumes.

COPPER ETHYL XANTHOGENATE. See xanthate.

COPPER FLUORIDE. Syn: *cupric fluoride*. clinic blue crystals. $CuF_2 \cdot 2H_2O$, mw: 137.60, d
THR = See fluorides and copper compounds.

COPPER FLUOROACETIC ACID. CuFOO mw: 141.7.
Acute tox data: Oral LD_{LO} (rat) = 10 mg/kg.
THR = HIGH via oral and inhal routes. See flu

COPPER GLUCONATE. Syn: *cupric gluconate*. blue, fine crystalline powder, sol in water, in acetone, alcohol and ether.
$[CH_2OH(CHOH)_4COO]_2Cu$, mw: 453.5.
THR = U. See copper compounds. A nutrient a dietary supplement food additive. Also a mineral added to animal feed. [*109*]

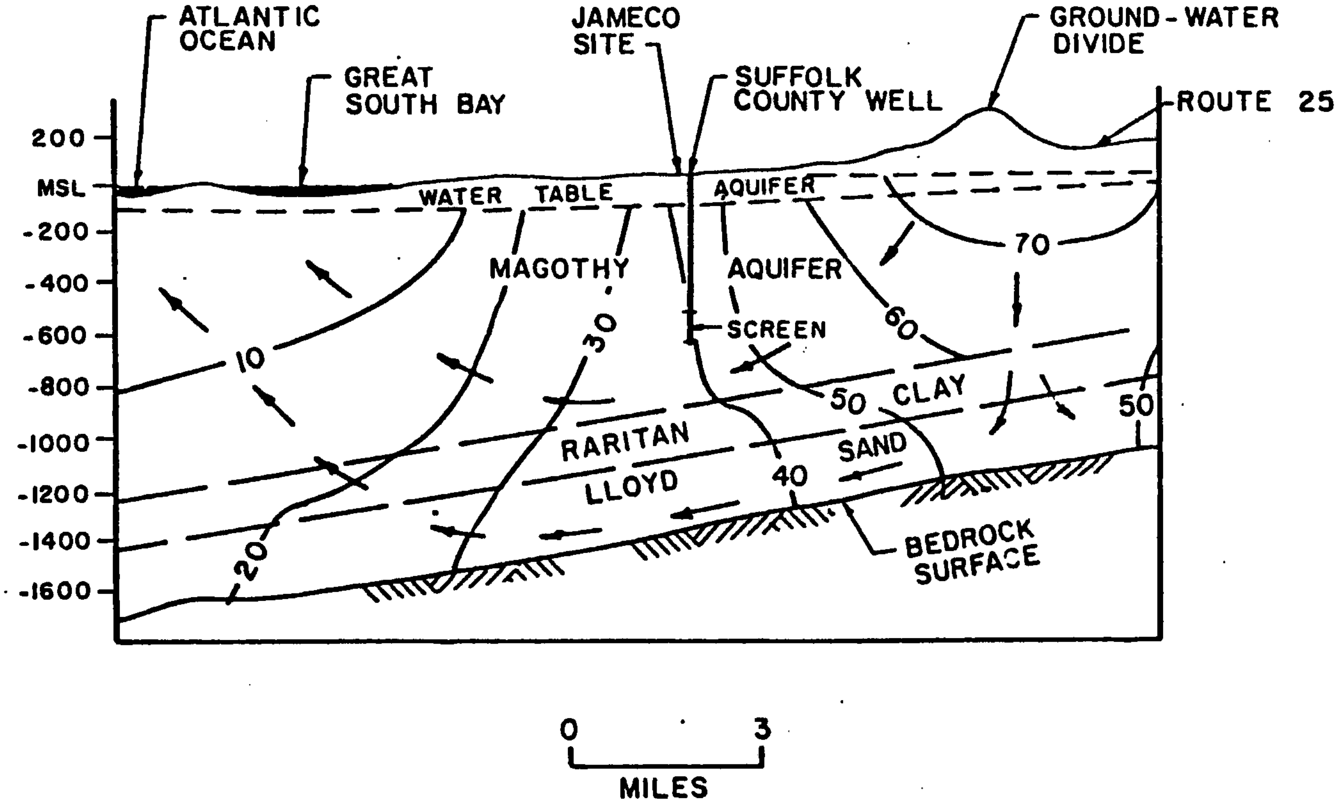
COPPER HYDRIDE. Red-brown crystals. CuH 64.55, mp: decomp @ 60°, d: 6.38.
THR = See copper compounds and hydrides.

COPPER HYDROSELENITE. Bluish-green prisms. $Cu(HSeO_3)_2$, mw: 319.5.
THR = See selenium and copper compounds.

COPPER HYDROXIDE. Syn: *cupric hydroxide* gelatinous or amorphous powder. $Cu(OH)_2$ 97.59, d: 3.368.
Acute tox data: Oral LD_{LO} (human) = 200 mg/
THR = HIGH via oral and inhal routes. A mineral added to animal feeds. Used as a fun [*109*] See copper compounds.

COPPER-8-HYDROXYQUINOLINE. See co quinolinolate.

COPPER MATTE NICKEL ORE.
THR = A recog carc. [*14*] See nickel compou



REGIONAL GEOHYDROLOGICAL CROSS SECTION
- LOOKING WEST -

REFERENCE

MODIFIED FROM FIGURE
13 U.S.G.S.W.S.P. 1768

21

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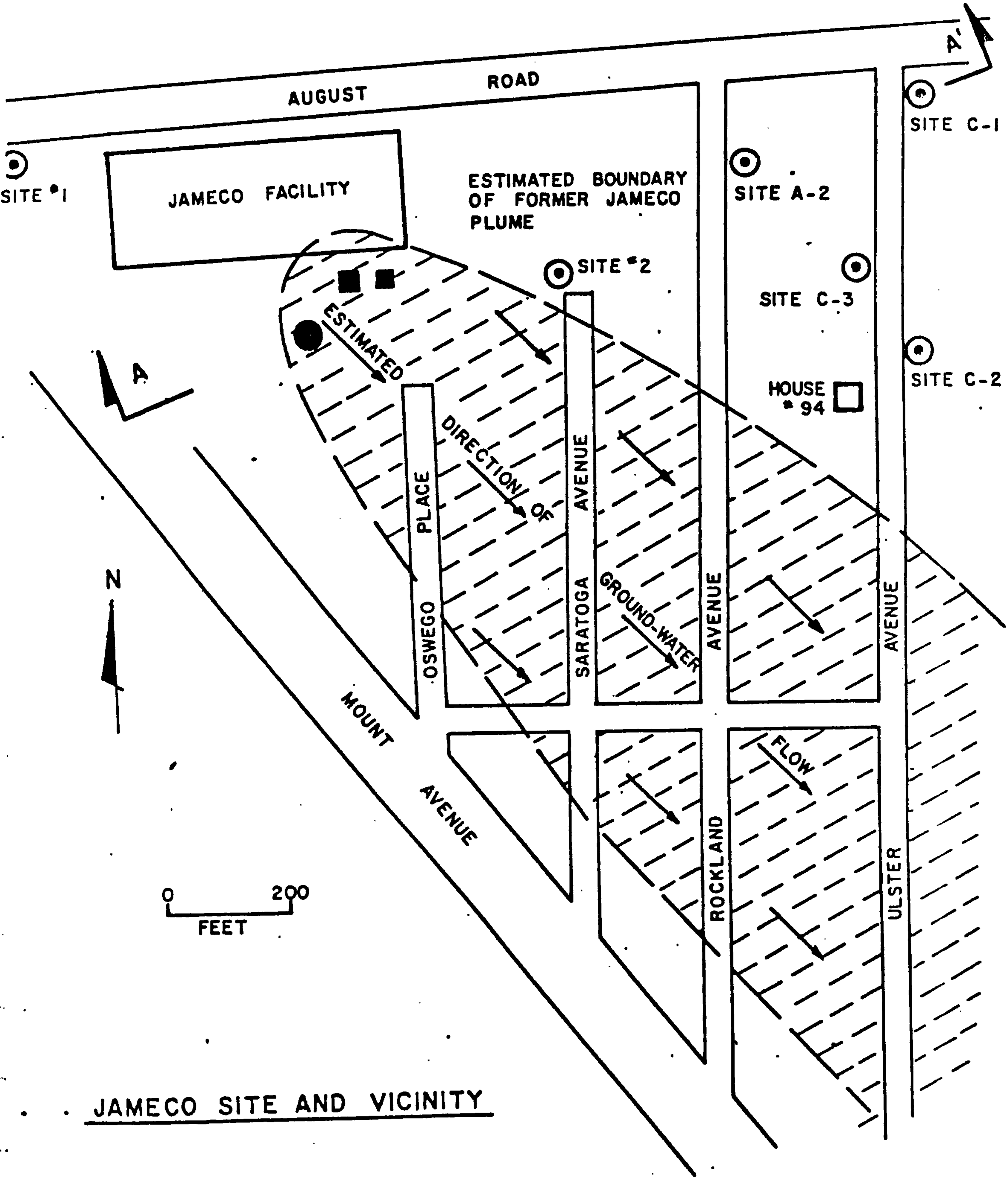
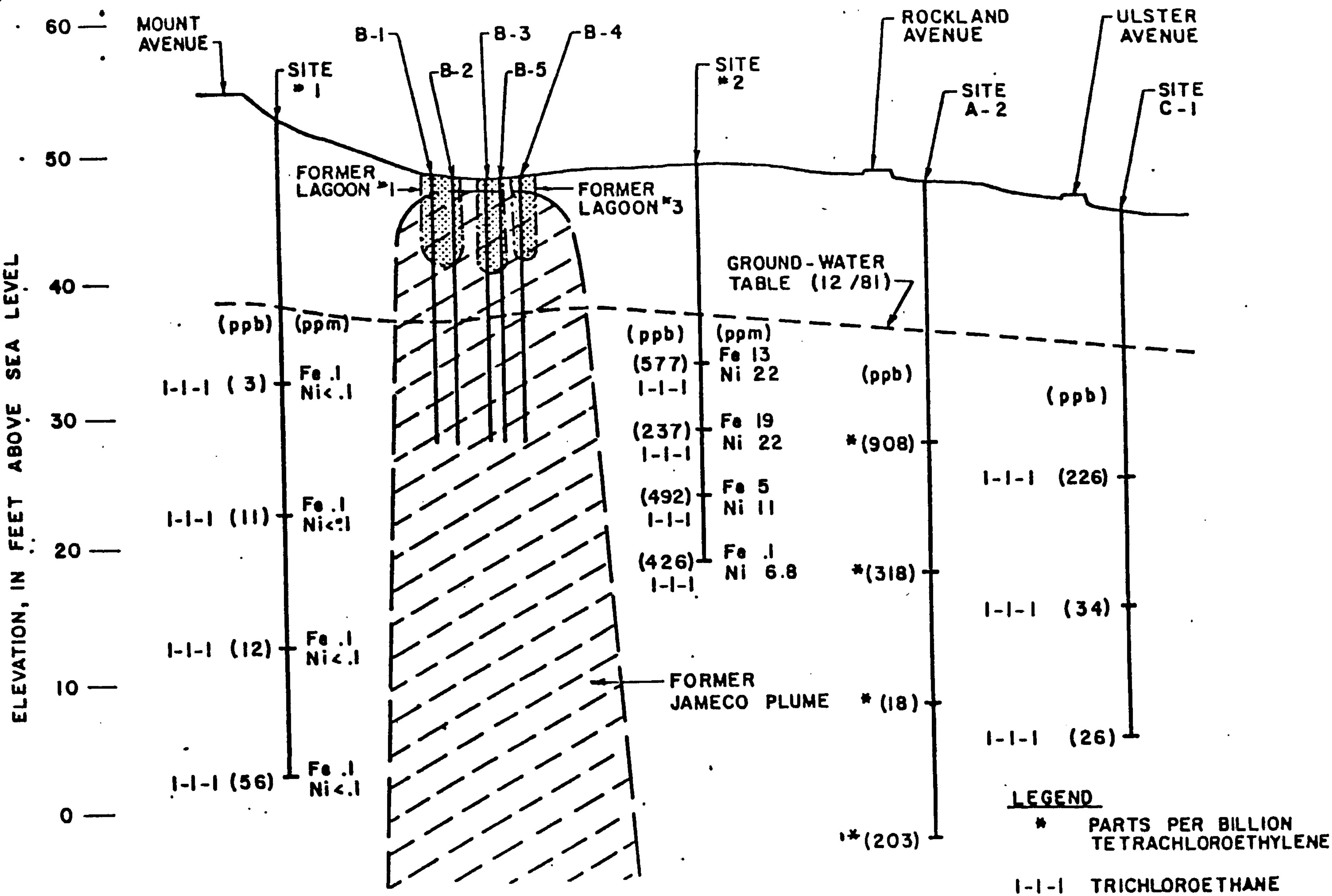


JAMECO SITE AND VICINITY

FIGURE 4 206



SITE CROSS SECTION
-LOOKING NORTHWEST-

FIGURE 5

L.M. PAGE 3/82

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Table 1

WATER QUALITY DATA

Well Owner	Location	Findings
Mr. Lattimer	47 Oswego Place	Ground water contained 67 ppm hexavalent chromium
SCDHS	Site #2 (Figure 4)	Copper .06 to .19 ppm, Iron .1 to 19 ppm, Nickel 6.8 to 32 ppm, Lead Cadmium Chromium and Hex Chromium nondetectable (August 1979)
SCDHS	Site #1 (Figure 4)	Iron .1, Copper Chromium Nickel Lead Cadmium Hex Chromium nondetectable (August 1979)
SCDHS	Site #2 (Figure 4)	1-1-1 trichloroethane 237 to 577 ppb (August 1979)
SCDHS	Site #1 (Figure 4)	1-1-1 trichloroethane 9 to 12 ppb (August 1979)
SCDHS	Site C-1 (Figure 4)	1-1-1 trichloroethane 26 to 226 ppb (January 1979)
SCDHS	Site C-2 (Figure 4)	Tetrachloroethylene 28 to 565 ppb (January 1980)
SCDHS	Site C-3 (Figure 4)	Tetrachloroethylene 2 to 1430 ppb (January 1980)
SCDHS	Site A-2 (Figure 4)	Tetrachloroethylene 18 to 908 ppb (January 1980)
Jameco	B-1 (Figure 3)	Nickel 6.8 ppm, Copper .57 ppm, Chromium and Hex Chromium nondetectable (December 1981)
Jameco	B-2 (Figure 3)	Nickel 3.4 ppm, Copper .15 ppm, Chromium and Hex Chromium nondetectable (December 1981)
Jameco	B-3 (Figure 3)	Nickel 0.28 ppm, Copper 0.25 ppm, Chromium and Hex Chromium nondetectable (December 1981)

Table 1
-continued-

WATER QUALITY DATA

Well Owner	Location	Findings
Jameco	B-4 (Figure 3)	Nickel 0.41 ppm, Copper 0.07 ppm, Chromium and Hex Chromium nondetectable (December 1981)
Jameco	B-5 (Figure 3)	Nickel 0.10 ppm, Copper 0.10 ppm, Chromium and Hex Chromium nondetectable (December 1981)
Jameco	B-6 (Figure 3)	Nickel 0.33 ppm, Copper 0.02 ppm, Chromium and Hex Chromium nondetectable (December 1981)
Jameco	B-7 (Figure 3)	Nickel 5.3 ppm, Copper 0.13 ppm, Chromium and Hex Chromium nondetectable (December 1981)

Table 2

Well Logs

1) Suffolk County Water Authority, Wyandanch, Long Island, NYS DEC #S-23848 Screen 12 inch diameter from 590 to 662 feet depth, Static Water Level 7 feet below ground, pumping water level 44 feet below ground when pumping 1543 gallons per minute for 8 hours.

Depth (feet)	Soil Description
0 - 87	Sand and gravel
87 - 100	Fine gray sand, lignite, mica
100 - 137	Gray clay, lignite
137 - 148	Medium brown sand
148 - 162	Gray clay
162 - 260	Brown and gray sand
260 - 288	Dark solid clay
288 - 308	Fine gray sand
308 - 324	Gray clay
324 - 453	Fine gray sand, lignite, mica
453 - 488	Dark solid clay
488 - 499	Fine gray sand
499 - 514	Gray clay
514 - 569	Gray and brown sand
569 - 590	Fine clayey sand
590 - 642	Fine gray sand, pyrite
642 - 658	Dark brown solid clay
658 - 669	Fine gray sand, lignite, mica

22 Ref# 7

NYS...

JAMECO INDUSTRIES INC.
WYANDANCH, NEW YORK

REPORT EVALUATING WASTEWATER TREATMENT FACILITIES AT JAMCO INDUSTRIES, INC.

MAY 1984

PROJECT # 8103 - 2

JOHN E. CONNORS & ASSOCIATES
ENVIRONMENTAL ENGINEERING CONSULTANTS
475 Underhill Blvd., P.O. Box AA
Syosset, New York 11791

Since April 1982 all of the treated process water and all of the non-contact cooling waters have been combined just upstream of the distribution manhole at the subsurface leaching system. This was done to allow for the maximum hydraulic utilization of the forty eight pools. All of the treated process and cooling waters discharged by Jameco have been directed to the existing leaching pools since April 1982.

It is estimated that currently the total water flow to the leaching system is between 50,000 gpd and 65,000 gpd on production days or 35,700 gpd to 46,500 gpd on a seven day week average. It has been noted that the twenty four (24) pools closest to the plant operate at a 5 foot liquid depth during the week and that the twelve (12) farthest from the plant operate at 1 to 2 feet liquid depth during the week. All "full" pools have several feet of free board on Monday mornings.

The existing leaching system has sufficient capacity to infiltrate the total quantity of filtered process water and cooling water discharged from Jameco. Jameco is planning to clean the leaching pools again this year so that the existing pools are operating at their maximum capacity.

Current SPDES Monitoring

A composite effluent sampler has been used to sample the treated effluent from the Jameco wastewater treatment facility since the late summer of 1981. It should be noted that Jameco has increased the frequency of effluent monitoring to "once per week" instead of "twice per month" to allow for closer control of the operation of its treatment plant.

Treatment plant effluent data for the period of November 23, 1983 to January 26, 1984 are presented on table 1. This period corresponds to the startup and operation of a new "pilot plant" effluent sand filter installed to replace an old diatomaceous earth polishing filter. This equipment is discussed in more detail in a later section of this report.

Based on the weekly effluent composite sampling of the treatment plant effluent for the period of November 23, 1983 to January 26, 1984, there have been no violations of the SPDES effluent limits for:

COD	Cyanide
Hexavalent Chromium	Copper
Total Chromium	Nickel
Zinc	Iron

In addition there was a single excursion for lead (0.06 mg/l vs 0.05 mg/l).

AREA: 4 SITE-11

NUMBER	DESCRIPTION	POPULATION	HOUSEHOLDS
4.1	RING: 0.25 MILE(S)	0	0
4.2	RING: 0.50 MILE(S)	4431	1422
4.3	RING: 1.00 MILE(S)	15878	5092
4.4	RING: 2.00 MILE(S)	81477	25152
4.5	RING: 4.00 MILE(S)	226413	69676

Action

AREA: 5 SITE-13

NUMBER	DESCRIPTION	POPULATION	HOUSEHOLDS
5.1	RING: 0.25 MILE(S)	1100	318
5.2	RING: 0.50 MILE(S)	2368	684
5.3	RING: 1.00 MILE(S)	7380	2168
5.4	RING: 2.00 MILE(S)	39486	11890
5.5	RING: 4.00 MILE(S)	147564	44944

3-D

AREA: 6 SITE-15

NUMBER	DESCRIPTION	POPULATION	HOUSEHOLDS
6.1	RING: 0.25 MILE(S)	0	0
6.2	RING: 0.50 MILE(S)	3842	981
6.3	RING: 1.00 MILE(S)	13794	3565
6.4	RING: 2.00 MILE(S)	61985	17490
6.5	RING: 4.00 MILE(S)	183635	53318

Jameco
40° 44' 31" Lat
73° 21' 27" Long.

15.19.22 >logout
1163.75 ARU'S, .15 CONNECT HRS
LOGGED OFF AT 15.20.01 ON 28DEC84

@

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Source: Donnelley Marketing, 1984.

Proximity of Active Agricultural Land and Prime Farmland to Candidate Inactive Hazardous Waste Sites

Site 15 - Jameco Industries, Inc. (None) Source: NYSDAM

Site No.	Sheet No.	Criteria #1*	Criteria #2**	Comments
1	57 #	No	Yes	Prime farmland within 2 but not 1 mile
3	70 #	Yes	Yes	Prime farmland within 3/4 mile
5	8 & 17 #	Yes	Yes	Active prime farmland in Suffolk County Agricultural District #1 adjacent to site
6	40 #	No	No?	Mount Sinai area to N/E (Sheet 40) and area to east should be investigated - farmland is at the 2 mile range
8	64 & 65 #	No	No	
12	54 #	Yes	Yes	Nursery stock 700 ft. south; 40 acre vegetable farm is SW about 1.5 miles; within mile to the north
16	51 #	Yes	Yes	30 acre vegetable farm to the west; areas to the east
17	17 #	Yes	Yes	All farmland prime; horse farm adjacent to site to the west; also farmland within 3/4 mile to the North and Northeast
18	47 #	Yes	Yes	Prime farmland within 1.5 miles; vegetable farm within a mile at North Sea
23	✱	Yes	Yes	Active agricultural land within 1/4 mile, active prime farmland within 1/2 mile - site is adjacent to Rensselaer County Agricultural District #7
24	✱	Yes	Yes	Active prime farmland within 1/4 mile; site is adjacent to Rensselaer County Agricultural District #3.

*Distance to agricultural land in production within past 5 years, if 1 mile or less.
**Distance to prime agricultural land in production within past 5 years, if 2 miles or less.
Soil survey of Suffolk County, USDA-SCS in cooperation with Cornell Agricultural Experiment Station issued 4/75--information obtained during telephone conversations with Suffolk County SWCD, and County USDA, Agricultural Stabilization and Conservation Service staff.
✱ - Not Applicable; soil survey mapping completed-awaiting publication--information obtained during telephone conversation with the USDA-SCS, District Conservationist with the Rensselaer County SWCD.

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January 1985

See File for more detailed information regarding Significant Habitats and Reports. A topo map for each site is in the file and critical habitats are indicated. 25

1/3/.. LEW

Significant Habitats - Phase 1 Reports

REFERENCE: NYSDEC, 1984, Significant Habitat Reports and Maps in (applicable) County, Division of Fish and Wildlife, Significant Habitats Unit.

Nassau
Suffolk
Kings
Albany
Rensselaer

Site Number	Report
1	None
2	30-20 Island Park
	-23 Cinder Island; No. Cinder Island; Gull Island
	-29 East Channel Island-subcolony 1 and 2; Garrett Marsh
	-30 Pearsalls Hassock
3	52-35- Manorville Hills* (just outside 1 mile radius-check map)
	37- Rock Hill- Radar Hill Pine Barrens
4	None
5	None
6	52-16 - Port Jefferson Harbor
7	None
8	None
9	52-6 Great South Bay

Site Number		Report
10		None
11		None
12		None
13		None
14		None
* 15	Jameco Industries, Inc.	None
16		None
17		None
18		52-58 North Sea Harbor
19		None
20		None
21		None
22		None
23		None
24		42-1 Hoosic River & Associated Lowlands

February 15, 1985

WOODWARD CLYDE CONSULTANTS, INC.
201 Willowbrook Blvd.
P.O. Box 290
Wayne, NJ 07470

Attention: Mr. Christopher Motta

Dear Mr. Motta:

This letter is in response to the request for information regarding Preliminary Field Investigations at Inactive Hazardous Waste Disposal Sites.

The following information is presented in the same format as in the December 24, 1984 letter to me from Charles Goddard of the NYSDEC.

A. Generators of waste deposited at the site: JAMECO INDUSTRIES, INC.

B. Type of waste: Hazardous Waste Solid NOS ORM-E

C. Period of time site was operated: 1964 - 1975

D. Description of operational practices: See attached sheet - page 17 of an old plating manual.

E. Testing, monitoring or remedial action: Both sludge drying beds were cleaned out and covered with clean soil in 1975. Test bores taken last year confirmed that fact.

F. Health or environmental problems: None

If you have any questions regarding this matter, please don't hesitate to call me.

Your very truly,

JAMECO INDUSTRIES, INC.

Donald Dowden

DD:DL
encl.

WOODWARD-CLYDE CONSULTANTS, INC.

RECORD OF TELEPHONE CONVERSATION

Date: 11 February 1986 **Time:** 11:50 am **Project No.** 89C45[illegible]

Re: Well data for Wyandanch Avenue Wells (for Jameco Site)

Call Placed By: L. Wade **Of:** Wayne NJ.

To: Mr Dassler **Of:** Suffolk County Water Authority (SCWA)

(516) 589-5200

Notes:

Wyandanch Avenue public supply wells #1 (23848) and #2 (25674) are located not more than [illegible] feet north of Jameco Industries Inc. These two public supply wells are the only wells on site and both are currently operating. Confirmed well data includes:

Well #1 (23848) - 634.5' deep; screen: 558'-631'; Magothy aquifer; water at 6.63' in 1982

Well #2 (25674) - 625.5' deep; screen 556'-622'; Magothy aquifer; water at 9.01' in 1982

Signed: L. Wade

Freshwate Wetland Boundry lines 28

Sandpit
B A B Y L
John Quincy Adams Sch
High Sch
Deer Park
LONG ISLAND
Geiger Memorial Park
SS Cyril and Methodius Sch
Wyandanch
Moore Sch
Abraham Lincoln Sch
Wyandanch
Milton Olive Sch
High Sch
Wyandanch
Martin Luther King Sch
Park
Wyandanch Ave
15
CEMETERY
CUMBERBACH
HILLTOP AVE
Belmont Lake Jr High Sch
Belmont Lake
Woods Road Sch
Incinerator
STATE PARKWAY
INTERCHANGE 38
INTERCHANGE 37
INTERCHANGE 36
SOUTHERN
Belmont Sch
Fire Sta
Moses Jr High Sch
Phelps Lane Sch
Parkside Sch
Phelps Lane Memorial Park
Santapogue Sch
West Babylon
MONTGOMERY AVE
MANHATTAN AVE
NEPTUNE
Radio Towers (WGLI)
Forest Ave Sch
Tooker Ave Sch

30

WOODWARD—CLYDE CONSULTANTS

RECORD OF TELEPHONE CONVERSATION

Date: Feb 3 1987 **Time:** 1550 **Job No.** 8304483

Re: Site history at Anocco

Call To: ☒ **Call From:** ☐

Name: Jim Pim

Organization: Suffolk Dept. of Health Services

Phone No: 516-451-4634

Notes: Lagoons and leaching pools in use at same time. Leaching pools there now are not same ones as those when Lagoons existed (before 1975). Treatment for wastewater was Lancy system: "chemical precipitation type system" for metals.

Signed: [illegible signature]

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TABLE 2.—*Summary of the rock units and their water-bearing properties, Long Island, N.Y.*—Continued

stem	Series	Geologic unit		Hydro-geologic unit	Approximate maximum thickness (feet)	Depth from land surface to top (feet)	Character of deposits	Water-bearing properties
		—Unconformity—						
ac	Upper Cretaceous	Raritan Formation	Clay member	Raritan clay	300	70-1,500	Clay, solid and silty; few lenses and layers of sand; little gravel. Lignite and pyrite are common. Colors are gray, red, and white, commonly variegated.	Poorly to very poorly permeable; constitutes confining layer for underlying Lloyd aquifer. Very few wells produce appreciable water from these deposits.
			Lloyd Sand Member	Lloyd aquifer	500	200-1,800	Sand, fine to coarse, and gravel, commonly with clayey matrix; some lenses and layers of solid and silty clay; contains thin lignite layers and iron concretions locally. Locally, has gradational contact with overlying Raritan clay. Sand and most of gravel are quartzose. Colors are yellow, gray, and white; clay is red locally.	Poorly to moderately permeable. Specific capacities of wells in the Lloyd generally range from 1 to about 25 gpm per foot of drawdown, rarely are as much as 50 gpm per ft. Water is confined under artesian pressure by overlying Raritan clay; generally of excellent quality but has high iron content locally. Has been invaded by salty ground water locally in necks near north shore, where aquifer is mostly shallow and overlying clay discontinuous. Called deep confined aquifer in some earlier reports.
		—Unconformity—						
mbrian		Bedrock		Bedrock	----------	0-2,700	Crystalline metamorphic and igneous rocks; muscovite-biotite schist, gneiss, and granite. A soft clayey zone of weathered bedrock locally is more than 100 ft thick.	Poorly permeable to virtually impermeable; constitutes virtually the lower boundary of ground-water reservoir. Some hard, fresh water is contained in joints and fractures, but is impracticable to develop at most places; however, a few wells near the western edges of Queens and Kings Counties obtain water from the bedrock.

The fresh-salt water interface is not a sharp undary. The horizontal distance over which the sc ed-solids content of ground water changes m completely fresh to completely salty is genlly on the order of 2–3 thousand feet near the th shore of Long Island. Over this distance, dissolved-solids content of the ground water reases at first gradually in the direction of the ground water and then more rapidly.

The fresh-salt water interface is a complex streamline surface, and fresh ground water discharging into the ocean and bays moves parallel to the interface and not across it. The hydrodynamics of a stable interface and, to an even greater degree, an unstable interface that changes position in response to changes in head within the ground-water reservoir, is complicated and beyond the scope of this report. (See Lusczynski, 1961; Cooper, 1964; and Kohout, 1964.)

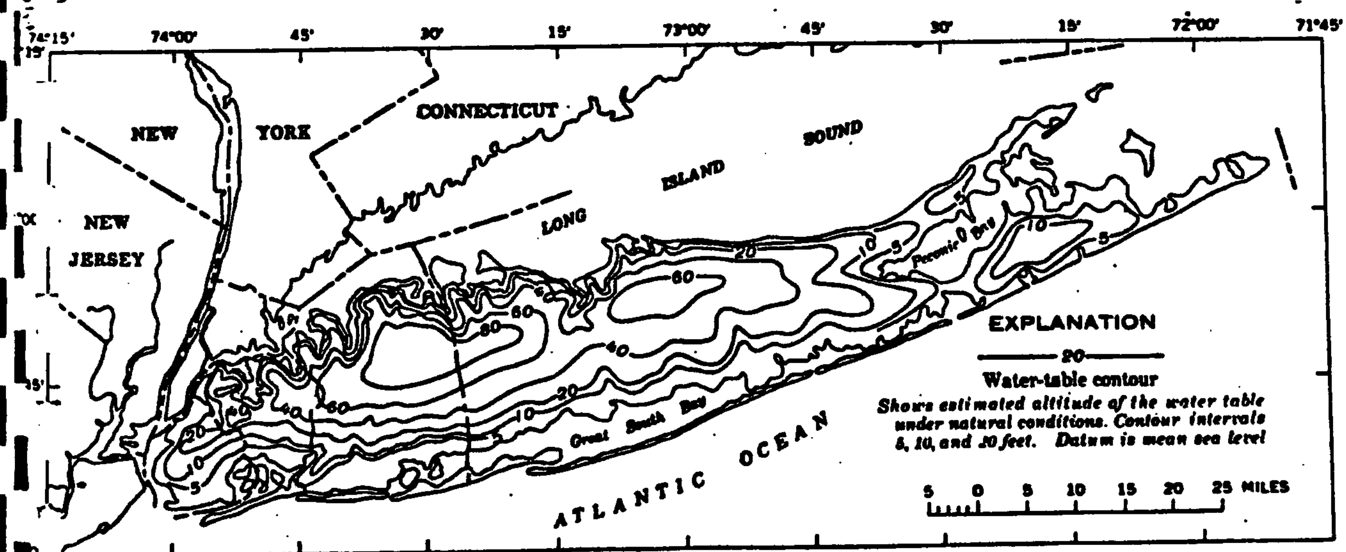

FIGURE 9.—Estimated average position of the water-table under natural conditions.

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REPORT TO:

JAMECO INDUSTRIES, INC.

Results of Soil and Water

Testing at the Wyandanch New York Plant Site

On December 22, 1981 Allee King Rosen and Fleming, Inc. was retained to obtain soil and water samples to ascertain if abandoned waste beds at the Jameco Industries, Inc. Wyandanch, New York plant site still contained sludge and if selected metals historically discharged by Jameco were impacting groundwaters under the site.

TREATMENT PONDS

On a site visit performed on 23 December 1981, the location of the abandoned waste beds were defined through examination of engineering site plans and interviews with employees familiar with the abandoned waste disposal system and its operation. From these data, a site plan was developed (Figure 1) presenting the location of the effluent ponds. Little physical evidence of the ponds remains with the exception of a fence post located at the east side of the southern face of the one-story block building. The fence was located at the bottom of the berm of Pond 2. The berm was reported to be 5 to 6 feet above grade and 12 feet wide from top to toe. The bottom of the pond was reported to be 2 to 3 feet below grade.

Pond 1 was located by reference to Pond 2, the current waste treatment plant, and the Main Building. The size of the berm was reported as being of the same dimensions as Pond 2. The diameter of Pond 1 was estimated to be 5 feet larger than the width of Pond 2.

A third pond was reported to have been dug because Pond 2 experienced overflows during severe rainfall. Roof drainage from the one-story block building discharged into Pond 2. the purpose of this pond was to catch the overflows from Pond 2 to allow infiltration of all effluent.

The effluent disposal system was reported to have been operated by discharging into the primary disposal Pond 1 for periods of approximately two years until infiltration would no longer keep up with the discharge. The discharge was then diverted to Pond 2. Pond 1 was then allowed to dry for a period of approximately six months after which a contract disposal firm removed the sludge for off-site disposal. The discharge was then returned to Pond 1.

While Pond 2 was in operation, the effluent, diluted with rain water from a roof drain, periodically overflowed. To prevent surface discharge of this mixture, a wide ditch was dug to the east of the pond. This containment area, Pond 3, is reported as having been 12 to 24 inches deep with a berm of 2 to 3 feet in height. Addition of Pond 3 eliminated overflows from contained infiltration areas.

The operation of an infiltration disposal system for plating waste effluents is a common method for waste disposal wherever the soils will permit. If soils are not permeable, settling followed by surface discharge is used.

The ponds of an infiltration system operates in two ways. First, metallic salts precipitated in the chemical treatment system are removed by the combined action of settling and filtration. When first operated after cleaning, the solids are removed through filtration by the soil, the same method used to remove aluminum salts used in drinking water treatment systems. Once a sludge blanket develops, the sludge acts as a fine filter for the effluent prior to entry into the soil.

The second purpose of the ponds in the treatment system is to dispose of the treated effluent. In arid regions where evaporation exceeds rainfall, ponds are lined and sized to dispose of the liquid by evaporation. Where surface waters are available, discharge is directed to these waters. In the case of Jameco, the only nearby surface water, Belmont Lake, has long been a recreational facility unsuitable for an industrial discharge. Thus, the use of a groundwater discharge.

During periods when Pond 2 overflowed into Pond 3, Pond 2 would remove a large portion of the solids through settling with only a small quantity of solids being discharged into Pond 3. These residual solids would then be removed through filtration as the overflow infiltrated into the ground.

SAMPLING PROGRAM

The purpose of the sampling program was twofold; to verify that sludge deposits were removed from the the ponds as required by the 1975 National Pollution Discharge Elimination System permit and alleged not to have been performed in a pending legal action; and to determine if any residual heavy metals are leachinginto the groundwater at levels which would contravene groundwater quality standards.

The achieve the purposes of this sampling program, soil borings were taken at various locations and depths throughout the site (Figure 2). The location of these borings were selected to obtain a background sample upgradient of the waste disposal systems (historic and current), two borings in the primary disposal Pond 1, two borings in the secondary Pond 2, and downgradient wells outside the area of the pond in which sludge was present. The downgradient boring for Pond 1 was located at the southern edge of the berm because the area south of the waste treatment pond is now used for the effluent disposal system leaching system. The Pond 2 downgradient well was located close to the pond because this area was identified as the location where previous soil samples were obtained by others.

Sampling was conducted on the 29th and 30th of December 1981, under the direction of Mr. Leo Page. The drilling was performed by Warren George, Inc. The sampling procedure is presented in Attachment 1. Soil samples were obtained every two feet at each location to depths of approximately 20 feet. Boring logs were prepared by the driller and Mr. Leo Page (Attachment 2 and Appendix A of Attachment 1 respectively). The soil samples obtained were analyzed for four metals (nickel, copper, total chromium and Hexavalient Chromium) based upon effluent composition. Additionally, at the completion of drilling, a groundwater sample was obtained from each boring.

SAMPLING RESULTS

The results of the soil and water sampling are presented in Figures 3 thru 5 and Attachment 3. The soil tests show no evidence of sludge deposits with heavy metals concentrations elevated to levels consistent with leaching of treated effluent. Sludge deposits would be expected to have concentrations of 5,000 to 10,000 mg/gr while the highest concentration found was only 1,460 mg/gr.

Metals in soils can result in two ways. First, natural metal compounds occur in all soils as a basic component of the soil structure. The second source of metals in soils is from adsorption of dissolved metals from groundwater or infiltrating water (i.e., highway and urban runoff or septic tank effluents). The adsorption process is a complex physical /chemical reaction with ion-exchange being the dominant force. In sands, as found at the Jameco site, iron oxide deposits on the sand particles are reported to be the exchange medium.

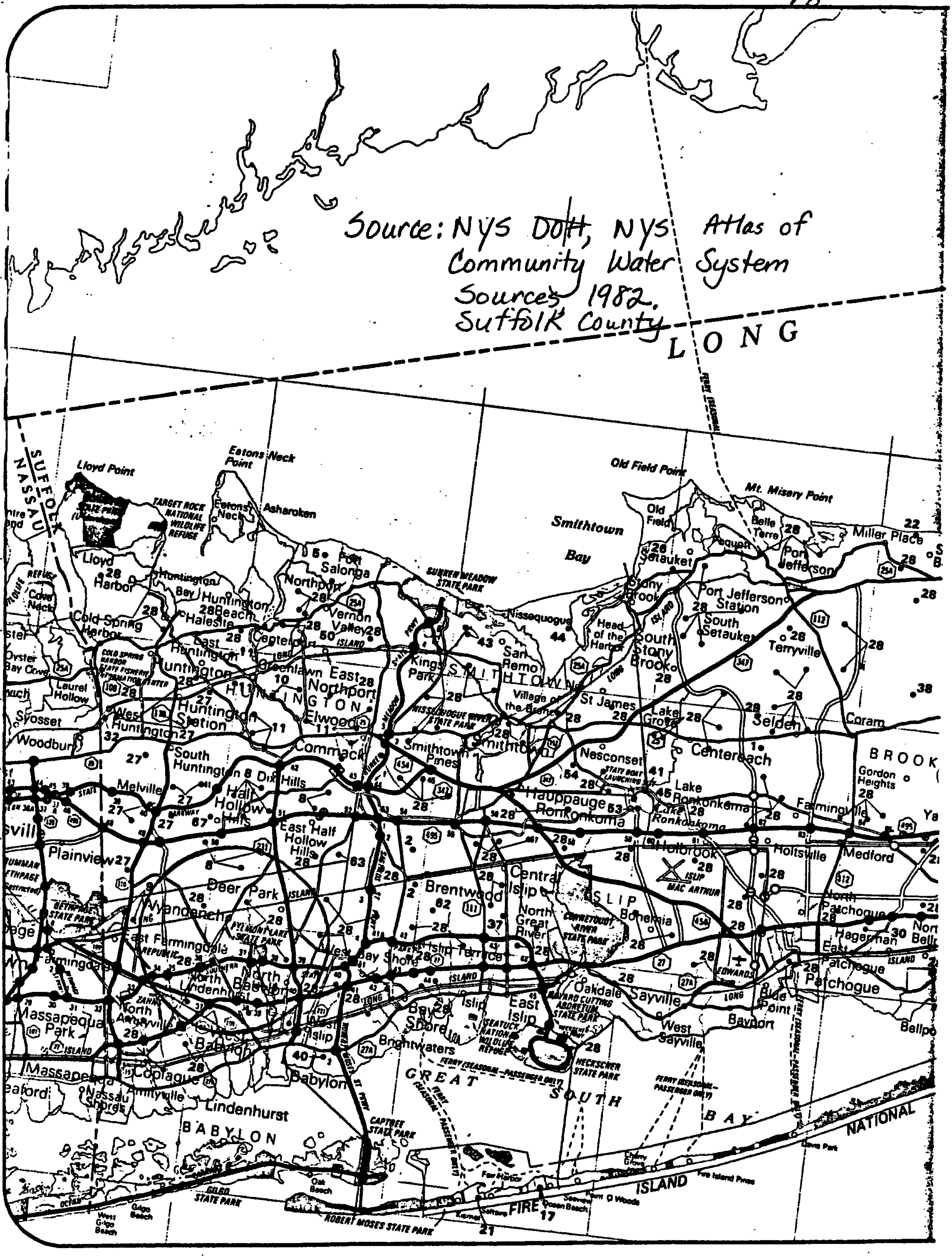
The background boring (B-6) contained low levels of nickel, total chromium and and copper and no hexavalient chromium. The two borings in Pond 1 (B-1 and B-2) have nickel, copper in total chrome levels higher than the background but well below what would be expected if sludge were present. The concentrations in the lower soil levels drop off consistent with long-term application of dilute effluent. Pond 2 shows similar results with the exception of higher concentrations at the two-foot level. Although this area showed the highest total chromium concentration, levels were not consistent with sludge deposits.

The downgradient borings (B-4 and B-7) showed significantly lower concentrations of metals in the soil than those directly under the ponds. This indicates that little lateral movement of infiltrated water above the groundwater table has occurred and that below the groundwater table the capacity of the soils to absorb metals has not been exhausted. This second fact leads to the conclusion that if any migration of metals occurred during the period of use of these ponds, the impact beyond the immediate vicinity of the ponds is limited and that no impact beyond the property from this source is likely.

No hexavalient chromium was found in any of the soil samples, significant as this form of chromium exhibits toxicity while other states are

Inc., (pg. missing from original report)

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982



Source: NYS DOH, NYS Atlas of Community Water System Sources 1982. Suffolk County

ADAPTED FROM THE FOUR-SHEET, 1:250,000 SCALE NEW YORK STATE MAP, © 1980 BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION.

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SCALE 1:250,000
0
5 MILES

NORTH

.18

SUFFOLK COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		
1	Bevon Water Corporation	1150	Wells
2	Brentwood Water District	25812	Wells
3	Bridgehampton Water Company	1916	Wells
4	Captain Kidd Water Company	580	Wells
5	Crab Meadow Beach	50	Wells
6	Culross Corporation (Culross Beach)	104	Wells
7	Dering Harbor Village	130	Wells
8	Dix Hills Water District	30000	Wells
9	East Farmingdale Water District	7850	Wells
10	Fishers Island Water Works Corporation	250	Barlow, Middle Farms and Treasure Ponds, Wells
11	Greenlawn Water District	40000	Wells
12	Greenport Village	6851	Wells
13	Hampton Bays Water District	9500	Wells
14	Hawthorne - Maple Civic Association	50	Wells
15	Herod Point Association	80	Wells
16	North Shores Water Company	5000	Wells
17	Ocean Beach Village	155	Wells
18	Reeves Beach Water Company	650	Wells
19	Riverhead Water District	9300	Wells
20	Roanoke Water Corporation	201	Wells
21	Saltaire Village	35	Wells
22	Scott's Beach Water Company	342	Wells
23	Shelter Island Heights Association	498	Wells
24	Shirley Water Works	3400	Wells
25	Shorewood Water Corporation	10000	Wells
26	Soundview Association	236	Wells
27	South Huntington Water District	51260	Wells
28	Suffolk County Water Authority	900000	Wells
29	Sunhill Water Corporation	3959	Wells
30	Swan Lake Water Corporation	1485	Wells
31	Terrace-on-the-Sound	400	Wells
32	Woodbury Triangle Corporation	800	Wells
	Non-Municipal Community		
33	Aquebogue Mobile Home Court	120	Wells
34	Brookhaven National Labs	3373	Wells
35	Calverton Hills Owners Association	897	Wells
36	Cedar Lodge Nursing Home	100	Wells
37	Central Islip Psychiatric Center	4525	Wells
38	Crest Hall Health Related Facility	120	Wells
39	East Quogue Mobile Estates	160	Wells
40	Good Samaritan Hospital	NA	Wells
41	Greis Mobile Park	70	Wells
42	Hampton Gateway Apartments	304	Wells
43	Kings Park Psychiatric Center	3100	Wells
44	Knox School	NA	Wells
45	Lake Hurst Lodge Adult Home	57	Wells
46	Leier's Mobile Park	350	Wells
47	Little Flower Children's Services	150	Wells
48	Montauk Air Force Station	10	Wells
49	Napeague Trailer Park	78	Wells
50	Northport VA Hospital	3000	Wells
51	Oak Park Trailer Park	50	Wells
52	Oakland Ridge Mobile Park	74	Wells
53	Park Lake Rest Home	46	Wells
54	Peacock Alley	35	Wells
55	Peconic River Trailer Park	90	Wells
56	Peconic View Adult Mobile Home Park	70	Wells
57	Pinecrest Garden Apartments	392	Wells
58	Ramblewood Mobile Homes	210	Wells
59	Ridge Rest Home	58	Wells
60	Rocky Point Family Housing	55	Wells
61	Rollin Mobile Homes	220	Wells
62	St Joseph Convent - Long Island University	1177	Wells
63	Sam A Lewison Start Center	40	Wells
64	South Bay Adult Home	40	Wells
65	Southampton College	1000	Wells
66	Speonk Mobile Home Park	50	Wells
67	Suffolk Developmental Center	3500	Wells
68	Three Mile Harbor Trailer Park	40	Wells
69	Thurm's Mobile Estates	450	Wells
70	USCG Station - Moriches	23	Wells
71	Wes Dubicki Apartments	NA	Wells

NYSDOH, 1982, NYS Atlas of Community Water

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SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES

STANDARD WORKSHEET FOR DETERMINATION OF

TOXICITY OF CONTAMINATED POOLS

ELD NO.: R3-D03-16 LAB NO.: 351449 DATE: 18 April 83

ME OF FIRM: JAMECO IND. INC.

DRESS OR LOCATION: Wyandanch Ave. Wyandanch

INT OF COLLECTION: pool C-10

EMARKS/INSTRUCTIONS:
only pool sampled, up to 40 pools may have had these limits.

RAMETER OVER LIMIT: mg/l:	methylene chloride 180 ppb. 50	CHLOROFORM 10 ppb.	trichloroethylene 85 ppb. 50	"perc" 1,400 50
TOXICITY MULTIPLIER (TM) = X	2.5		2.5	2.5
STRENGTH MULTIPLIER (SM) = X	2		2	5
DISTANCE TO GROUNDWATER (GW) = X	4		4	4
HYDROGEOLOGICAL ZONE (HZ) = X	1		1	1
DISTANCE TO NEAREST WELL (DW) = X	3		3	3
TM X SM X GW X HZ X DW =				150

If Score is greater than 200, pump out is required.

NAME: David Obey

SIGNATURE: [signature]

-8/82

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233

INDUSTRIAL CHEMICAL SURVEY

PART I

OMPLETE AND RETURN TO THE ABOVE ADDRESS, ATTENTION: INDUSTRIAL CHEMICAL SURVEY.

AME	SIC CODE (If known)	OFFICE USE ONLY
IECO INDUSTRIES		

MAILING ADDRESS	CITY	STATE	ZIP CODE
DANCH AVE	WYANDANCH	N.Y	11798

(If different) AME	CONTACT NAME	TELEPHONE
	ISRAEL GAJER	Area 516 643530

ESS (If different)	CITY	STATE	ZIP CODE
SAME			

SINESS OF PLANT

MANUFACTURING.

nt company, give name and addresses of all divisions, subsidiaries, etc. located in New York State. A separate questionnaire is to be completed ubmitted for each.)

PART II
Discharge Information

oes your plant discharge liquid wastes to a municipally owned sanitary sewer system? ☐ Yes ☒ No

me of System ______

our facility permitted to discharge liquid wastes under a State (SPDES) or ederal (NPDES) permit? Permit Number 0073296 ☒ Yes ☐ No

you discharge liquid wastes in any other manner? ☐ Yes ☒ No

lain ______

ny of the above are "Yes":

o you discharge process or chemical wastes – (i.e. water used in manufacturing including direct ontact cooling water and scrubber water)? ☒ Yes ☐ No

o you discharge non-contact cooling water? ☒ Yes ☐ No

o you discharge collected storm drainage only? ☐ Yes ☐ No

o you discharge sanitary wastes only? ☐ Yes ☐ No

☐ Yes ☐ No

oes your facility have sources of possible emissions to the atmosphere? ☒ Yes ☐ No

Location and Facility Code as shown on your Air Pollution ol Application for Permits and Certification (If applicable) ☐☐☐☐☐☐☐☐☐☐

Name and Address of Firm (Including yourself) removing wastes other than office and cafeteria refuse.

Name			
SCA Chemical Services Co.			
Address 100 Lister Ave.	City Newark	State NJ	Zip Code 07105
Name			
Address	City	State	Zip Code

ocation(s) of Landfill(s) owned and used by your facility.

	Active	Inactive
	☐	☐
	☐	☐

this facility:

nufacture Pesticides or Pesticide Product Ingredients? ☐ Yes ☒ No

oduce Pesticides or Pesticide Product Ingredients? ☐ Yes ☒ No

ormulate Pesticides? ☐ Yes ☒ No

package Pesticides? ☐ Yes ☒ No

☐ Yes ☒ No

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...ORM "C" FOR A STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES) PERMIT
INDUSTRIAL OR MINING

TYPE ☐ Renewal ☐ Modification	IF RENEWAL OR MODIFICATION, GIVE PREVIOUS APPLICATION NO., EFFECTIVE DATE, EXPIRATION DATE No. NY–	Effective Date	Expiration Date
...NAME (Corporate, Partnership or Individual) ...CO INDUSTRIES		TYPE OF OWNERSHIP ☒ Corporate ☐ Individual ☐ Partnership ☐ Public	
...'S MAILING ADDRESS (Street, City, State, Zip Code) ...NDANCH AVE., WYANDANCH, NEW YORK 11798			
... CORRESPONDENCE TO: (Name, Title and Address) ...AEL GAJER AT ABOVE ADDRESS – VICE PPESIDENT – MFG.		TELEPHONE NO. (Include Area Code) 516 643-5300	
...TY NAME ...CO INDUSTRIES	FACILITY LOCATION (Street or Road) WYANDANCH AVE.	CITY, TOWN OR VILLAGE WYANDANCH	
...FOLK	GIVE EXPLICIT DIRECTIONS TO LOCATION, If Necessary		
... BUSINESS OR TYPE OF FACILITY ...ACTURER OF PLUMBERS' TUBULAR BRASS GOODS		NO. OF EMPLOYEES 325	NO. OF SHIFTS 1

...YOUR WASTE IS DISCHARGED TO A PUBLICLY OWNED WASTE TREATMENT FACILITY AND/OR A LICENSED WASTE SCAVENGER AND TO THE BEST OF ...OWLEDGE YOU ARE NOT REQUIRED TO OBTAIN AN SPDES PERMIT, COMPLETE THIS SECTION ONLY, SIGN APPLICATION AND RETURN.

AND/OR

...ADDRESS OF MUNICIPALITY RESPONSIBLE FOR RECEIVING WASTE	NAME AND ADDRESS OF LICENSED WASTE SCAVENGER

...CTION DATA (Use additional forms, if necessary)

...TYPES OF PROCESSING DONE AT THIS FACILITY

... CLEANING
...KEL PLATING
...OME PLATING

...AL PRODUCTS AND AMOUNTS PRODUCED PER TIME UNIT	RAW MATERIALS AND AMOUNTS CONSUMED PER TIME UNIT
...LAR BRASS GOODS	1.
	2.
	3.
	4.
	5.

...OF YOUR DISCHARGES CONTAIN OR IS IT POSSIBLE FOR ANY DISCHARGE TO CONTAIN ONE OR MORE OF THE FOLLOWING SUBSTANCES ADDED AS ... YOUR OPERATIONS, ACTIVITIES OR PROCESSES?

...um	☐ Arsenic	☐ Boron	☒ Chromium	☒ Flourides	☒ Lead	☒ Nickel	☐ Selenium	☐ Tin
...monia	☐ Barium	☐ Cadmium	☒ Copper	☐ Gold	☐ Manganese	☐ Oil & Grease	☐ Silver	☒ Zinc
...imony	☐ Beryllium	☐ Chlorine	☐ Cyanide	☒ Iron	☐ Mercury	☐ Phenols	☐ Sulfides	

...on control chemicals (specify)

...ogenated organics or halogenated hydrocarbons (e.g. chlorinated, flourinated or brominated) (specify) TRICHLOROETHYLENE

...bicides or pesticides (specify)

...tivity (specify)

...es, biocides or algaecides (specify)

...stituted aromatics (e.g. derivatives of benzene, pyridene, biphenyl, napthalene, coal or petroleum tar, etc.) (specify)

...nts (specify) ALKALINE CLEANERS

... the above

... the trade names and manufacturer of any chemicals used at this facility which are not listed above and whose specific constituents are not ...n you.

...of above: (Attach additional sheets, if necessary)

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... HAULED BY AN APPROVED SCAVENGER

ATA (Continued) (See Instructions) ATTACH SKETCH SHOWING OUTFALL LOCATIONS

☐ Proposed ☐ Replacement ☒ Existing ☐ Expansion | TYPE OF WASTE: SANITARY | TYPE OF TREATMENT (If none, so state): NONE

Gal/Day | ACTUAL FLOW Gal/Day | FREQUENCY OF DISCHARGE ☐ Continuous ☒ Intermittent ☐ Batch | IS FLOW EQUALIZATION PROVIDED? ☐ Yes ☒ No If "Yes", describe in comments

SCHARGE: Months per year | 5 Days per week | 8 Hours per day

RGE ☐ No | If "Yes", Name of Receiving Waters | Classification | Waters Index No.

CHARGE | If "Yes", Name of nearest Surface Water: BELMONT LAKE | Distance: 2,000 Ft. | SOIL TYPE: SAND AND GRAVEL | Depth to Water Table: 60

☐ Proposed ☐ Replacement ☒ Existing ☐ Expansion | TYPE OF WASTE: COOLING WATER | TYPE OF TREATMENT (If none, so state): NONE

Gal/Day | ACTUAL FLOW 20,000 Gal/Day | FREQUENCY OF DISCHARGE ☒ Continuous ☐ Intermittent ☐ Batch | IS FLOW EQUALIZATION PROVIDED? ☐ Yes ☒ No If "Yes", describe in comments

CHARGE: Months per year | 5 Days per week | 8 Hours per day

RGE ☐ No | If "Yes", Name of Receiving Waters | Classification | Waters Index No.

CHARGE | If "Yes", Name of nearest Surface Water: BELMONT LAKE | Distance: 2,000 Ft. | SOIL TYPE: SAND AND GRAVEL | Depth to Water Table: 60

☐ Proposed ☐ Replacement ☒ Existing ☐ Expansion | TYPE OF WASTE: AUTOMATIC PLATING LINE | TYPE OF TREATMENT (If none, so state): PHYSICAL - CHEMICAL

Gal/Day | ACTUAL FLOW 3,000 Gal/Day | FREQUENCY OF DISCHARGE ☒ Continuous ☐ Intermittent ☐ Batch | IS FLOW EQUALIZATION PROVIDED? ☒ Yes ☐ No If "Yes", describe in comments

CHARGE: Months per year | 5 Days per week | 8 Hours per day

RGE ☐ No | If "Yes", Name of Receiving Waters | Classification | Waters Index No.

CHARGE | If "Yes", Name of nearest Surface Water: BELMONT LAKE | Distance: 2,000 Ft. | SOIL TYPE: SAND AND GRAVEL | Depth to Water Table: 60

☐ Proposed ☐ Replacement ☒ Existing ☐ Expansion | TYPE OF WASTE: CLEANING PROCESS | TYPE OF TREATMENT (If none, so state): PHYSICAL - CHEMICAL

Gal/Day | ACTUAL FLOW 15,000 Gal/Day | FREQUENCY OF DISCHARGE ☒ Continuous ☐ Intermittent ☐ Batch | IS FLOW EQUALIZATION PROVIDED? ☒ Yes ☐ No If "Yes", describe in comments

HARGE: Months per year | 5 Days per week | 8 Hours per day

RGE ☐ No | If "Yes", Name of Receiving Waters | Classification | Waters Index No.

CHARGE | If "Yes", Name of nearest Surface Water: BELMONT LAKE | Distance: 2,000 Ft. | SOIL TYPE: SAND AND GRAVEL | Depth to Water Table: 60

affirm under penalty of perjury that information provided on this form and any attached supplemental forms is true to the best of my knowledge ... statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

TURE (See Instructions) | Date 2/7/79 | Printed Name MICHAEL LIPMAN | Title PRESIDENT

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PART III

SUBSTANCES OF CONCERN
(Refer to attached TABLE I)

...ete all information for those substances your facility has used, produced, stored, distributed or otherwise disposed of since January 1, 1971. Do not ...ude chemicals used only in analytical laboratory work. Enter the name and code from Table I. If facility uses a substance in any of the Classes A – F ...s not specified in the list, enter it as code class plus 99, e.g. B99 with name, usage, etc.

NAME OF SUBSTANCE	CODE	AVERAGE ANNUAL USAGE	AMOUNT NOW ON HAND	(✓) GAL.	(✓) LB.	PURPOSE OF USE (State whether produced, reacted, blended, packaged, distributed, no longer used, etc.)
...ethylene	A12	2500	250	✓		cleaning

...of unknown composition, list trade-name or other identification, name of supplier and complete information.

SUBSTANCE	AVERAGE ANNUAL USAGE	AMOUNT NOW ON HAND	(✓) GAL.	(✓) LB.	SUPPLIER	PURPOSE OF USE (State whether produced, reacted, blended, packaged, distributed, no longer used, etc.)

...firm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief. False statements made herein ...e as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

...rtner, or Officer)

DATE 8/7/79

MICHAEL LIPMAN

TITLE PRESIDENT

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14-12-4 (3/82)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NOTICE OF COMPLETE APPLICATION

Applicant: Jameco Industries   Date: April 9, 1984

Address: 248 Wyandanch Avenue

Wyandanch, NY 11798

Permits applied for and application number(s) SPDES NY-0081540, UPA File Number 10-82-1119

Project description and location. Town/City of Babylon County of Suffolk

The Department has made a tentative determination to approve this application for an modification of a permit to combine Outfall 003 and 004 and to increase the discharge of non-contact cooling water into groundwater from 15,000 gallons per day to 45,000 gallons per day. Facility is located at 248 Wyandance Avenue, Wyandance where the applicant manufactures plumbers tubular brass goods. The proposed discharge is located within an area designated as a sole source aquifer. Pursuant to Environmental Conservation Law 17-0828, the following public water purveyors have been identified as having service areas or portions thereof located within a three (3) mile radius of the applicant's facility.

1. Suffolk County Water Authority - Bay Shore Plant and Babylon Plant - Sunrise Highway at Pond Road, Oakdale, NY 11769.

SEQR DETERMINATION: (check appropriate box)

- ☐ SEQR-1 Project is not subject to SEQR because it is an exempt, excluded or a Type II action.
- ☐ SEQR-2 Project is a Type I action; it has been determined that the project will not have a significant effect on the environment. A Negative Declaration has been prepared and is on file.
- ☒ SEQR-3 Project is an unlisted action; it has been determined that the project will not have a significant effect on the environment.
- ☐ SEQR-4 A draft environmental impact statement has been prepared on this project and is on file.
- ☐ SEQR-5 A final environmental impact statement has been prepared on this project and is on file

SEQR LEAD AGENCY New York State DEC

AVAILABILITY FOR PUBLIC COMMENT: Applications may be reviewed at the address listed below. Comments on the project must be submitted to the Contact Person indicated below by no later than May 18, 1984

CONTACT PERSON: Karen N. Chytalo
NYSDEC, Bldg. 40, SUNY--Room 219   (516) 751-7900
Stony Brook, NY 11794

TO THE APPLICANT:

1. THIS IS NOT A PERMIT

2. This is to advise you that your application is complete and a review has commenced. Additional information may be requested from you at a future date, if deemed necessary, in order to reach a decision on your application.
3. Your project is classified MAJOR. Accordingly, a decision will be made within 90 days of the date of this Notice. If a public hearing is necessary, you will be notified within 60 days and the hearing will commence within 90 days of the date of this notice. If a hearing is held, the final decision will be made within 60 days after the hearing is completed.
4. Publication of this Notice in a newspaper is: ☐ required ☒ not required
   - If required, please consult the accompanying transmittal letter for further instructions.

CC: Chief Executive Officer Babylon Town Supervisor
Environmental Notice Bulletin, Room 509, 50 Wolf Road, Albany, N.Y. 12233-0001
File

T. Snyder
S. Costa

RECEIVED
APR 12 1984
S.C. DEPT. OF
HEALTH SERVICES

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APPLICANT

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Leo M. Page

Engineering Geologist - Geologist
Consultant Ground Water Hydrology

P. O. Box 267
Basking Ridge,
New Jersey 07920

(201) 766-0589

January 18, 1982

AK RF
Environmental and Planning Consultants
130 West 25th Street
New York, New York 10001

Attention: Mr. A.F. Fleming

Re: Preliminary Report
Soil and Ground Water Testing
Jameco Industries, Inc.
Wyandanch, Long Island, New York

Gentlemen:

INTRODUCTION

The soil and ground water testing program at the Jameco Industries, Incorporated plant on Wyandanch Avenue in Wyandanch, Long Island, New York, was originally discussed with Mr. A.F. Fleming of AK RF on December 15, 1981. The job was authorized on December 18, and the drilling and sampling of 7 test holes was done on December 29 and 30, 1981.

According to report, three shallow, unlined lagoons had been used to dispose of metal plating wastes from the mid 1960's until 1975. The sludge was supposed to have been removed from the lagoons, which were then backfilled with on-site sand and gravel soils. Subsequent testing of soils from the site by Suffolk County Department of Health Services personnel in August 1981 indicated that high levels of metals were found in soil samples. In August 1979 samples of ground water were taken by SCDHS personnel from wells near the Jameco site, and high concentrations of nickel and iron were found.

PURPOSE AND SCOPE

The main purpose for drilling test holes at the site was to obtain information on the metal content in the soils and ground water at select locations on the Jameco Industries site. The sites were selected at locations where it was considered most likely that remnant sludge would be found in the soils, and/or ground water.

Test holes were drilled with a CME-55, Hollow-Stem Auger drilling rig, which drills a 6 inch diameter hole, without the use of drilling fluid. Photograph #1 shows the drill rig, with the auger bit protruding about 18 inches above the ground, and the sampler rods inside the auger casing, with the sampler driving head in position to drive the sample. Soil samples were obtained by drilling to the desired depth, inserting a split-barrel sampler, 2 inch outside diameter, 1½ inch inside diameter, driving the sampler a vertical distance of 1½ to 2 feet, and withdrawing the sampler and removing the soil sample for testing. Photograph #2 shows the split barrel sampler opened after obtaining the sample from the ground. The soil sample shown in Photograph #2 was split in half along the length of the sampler, and duplicate samples were taken. The apparatus in the background of Photograph #2 shows a close-up of a Kemmerer-Type Underwater Sampler, used for obtaining groundwater samples from the test holes.

Two test holes (B-1 and B-2) were drilled in the area where lagoon #1 (the most frequently used lagoon) was reported to have been located. Continuous soil samples were taken from 2 feet to 12 feet below ground surface in B-1, and from 2 feet to 10 feet below ground in B-2. The test holes were drilled to depths of 18 to 20 feet below ground surface, and one ground water sample was taken from each test hole using the Kemmerer Sampler. After each water sample was taken, the stainless steel sampler was cleaned with distilled water before the next sample was taken. Photograph #3 shows the transfer of ground water from the sampler to the laboratory sample bottle.

Two test holes (B-3 and B-5) were also drilled in the location where lagoon #2 (second most frequently used) was reported to have been located. Soil and water sampling procedures in test holes B-3 and B-5 were similar to those used in B-1 and B-2.

Test hole B-4 was drilled at a location where it was reported that sludge had been encountered in a test boring drilled by SCDHS in August 1981. B-4 is located to the southeast of lagoon #2, which is considered to be downgradient of the ground water flow direction from lagoon #2. Continuous soil samples were taken in B-4 from 2 feet to 10 feet below ground surface, and the hole was then drilled to a depth of 19½ feet where a ground water sample was taken.

Test hole B-7 was drilled to the southeast of lagoon #1, which is considered to be downgradient of the ground water flow direction from lagoon #1. This test hole was installed primarily to obtain information on ground water quality in the shallow aquifer where it is most likely to be affected by remnant materials which might have been deposited during the operation of the sludge lagoon #1. The test hole was drilled to a depth of 19 feet below ground surface, a soil sample was taken at depth 14 feet to 15 feet, and one ground water sample was obtained from the test hole.

Test hole B-6 was drilled about 150 feet to the northwest of lagoon #2. This test hole was drilled upgradient of the estimated ground water flow direction of the shallow aquifer in this area. According to report, no chemicals were ever dumped in this location, and the quality of ground water at B-6 is considered to be representative of the shallow ground water flowing into the Jameco Industries site. Test hole B-6 was drilled primarily to obtain data on ground water quality in a control area, unaffected by the operation of the former sludge lagoons. One soil sample was obtained at a depth of 4 feet to 6 feet, and one ground water sample was taken after the hole had been drilled to a depth of 19 feet below ground surface.

A total of 7 ground water samples were obtained at the site, one from each of the seven test borings. Duplicate soil samples were taken from the borings:

B-1	seven samples
B-2	five samples
B-3	four samples
B-4	four samples
B-5	three samples
B-6	one sample
B-7	one sample

The logs of the test borings, and the sample depths are included in Appendix A.

FINDINGS

At lagoon #1, test borings B-1 and B-2 encountered permeable sand and gravel fill material to depths of about 8 to 9 feet below ground and highly permeable (estimate permeability of about 2,000 gallons per day per square foot) quartzose sand and gravel to the bottom of the holes. No sludge material was encountered in either test boring, but a one eighth inch thick seam of metallic material was encountered at 9 foot depth in B-2.

At lagoon #2, test borings B-3 and B-5 encountered about 6 feet to 8 feet of permeable sand and gravel fill material, with some discoloration due to oil on some of the samples. No sludge was observed on any of the samples. The natural soils, brown, coarse, sand, gravel, pebbles and cobbles, highly permeable, were penetrated from about 8 feet to 20 feet depths.

Test boring B-4, which was drilled near the southwest corner of lagoon #3 (the least frequently used lagoon), penetrated clean permeable sand and gravel fill to about 6½ feet depth and highly permeable, natural sand, gravel and cobbles to 19½ feet depth. No evidence of sludge was found at this location, where it had been reported that green muck had been sampled from a test hole drilled by SCDHS in August 1981.

Based on careful visual examination of continuous soil samples obtained from all six test borings drilled in locations where metallic sludge was reported to have been dumped, no sludge material was observed.

Partial chemical analysis (nickel content) of ground waters obtained from the seven test holes showed abnormally high levels at, and downgradient from lagoon #1, but less than background levels of nickel at lagoon #2. The ground water sample from test boring B-6 had a nickel content of 0.33 ppm, which is higher than would be expected from natural background in ground waters. No detailed information has been provided to me at this time on the concentration of the other metallic ions in the ground water samples, and no data were available on the results of the chemical tests on the 27 soil samples.

CONCLUSIONS & RECOMMENDATIONS

Based on the reports that metallic sludge was obtained from test borings drilled by SCDHS, and the high metallic content (greater than 60,000 ppm) of the soils tested, it is possible that small pockets of metallic sludge occur at the site, in the area near lagoon #3. Rather than drill additional test borings in an attempt to find these sludge materials, it is recommended that a backhoe be used to excavate trenches, about 4 feet to 6 feet deep, 15 to 20 feet long, at select locations on the site. It might be adviseable to have SCDHS personnel at the site during this excavation, both to help select the locations where they encountered the sludge in their test holes, and to observe conditions in the area where they claim that no attempt was made to remove the muck.

Additional data analysis, and a final report on the test boring exploration and testing program, will be presented after the remaining data on ground water and soil tests have been presented to me.

If you have any questions on this matter, please contact me.

Very truly yours,

Leo M. Page

Leo M. Page

LMP:sk

21 NYS + d10

Leo M. Page

Engineering Geologist - Geologist
Consultant Ground Water Hydrology

P. O. Box 267
Basking Ridge,
New Jersey 07920

(201) 766-0589

March 5, 1982

Winer, Neuberger & Sive, P.C.
425 Park Avenue
New York, New York 10022

Attention: Daniel Riesel, Esquire

Re: Report
Ground Water Investigation
Jameco Industries
Wyandanch, Long Island, New York

Gentlemen:

INTRODUCTION

This ground water investigation has been conducted in two phases:

Phase I - Preliminary testing for select chemicals of soil and ground water at the site;

Phase II - Literature Review and analysis for site and vicinity.

The Phase I study was authorized December 18, 1981, seven test holes were drilled and sampled on December 29 and 30, and a Preliminary Report was submitted on January 18, 1982 to AKRF, Environmental Consultants.

The Phase II study was first discussed at a meeting in your office on January 8 and authorized January 13, 1982. Information was obtained from New York State, Suffolk County, and the U.S. Geological Survey offices in late January and early February and a verbal presentation was made of important findings and conclusions on February 5, 1982. During a telephone conversation with Janet Smith, Esquire on February 16, it was decided that a brief written report should be prepared summarizing the ground water investigation.

According to report, three shallow, unlined lagoons had been used to dispose of metal plating wastes from the mid 1960s until 1975. The sludge was supposed to have been removed from the lagoons, which were then backfilled with on-site sand and

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gravel soils. Previous investigations relating to Jameco Industries operations and the environment were reported from about 1964 to the present time. In August 1979 samples of ground water were taken by SCDHS personnel from temporary monitor wells installed near the Jameco site, where high concentrations of nickel and iron were found. Subsequent testing of the Jameco site by SCDHS in August 1981 indicated high levels of metals in the soil.

PURPOSE AND SCOPE

The purposes of this ground water investigation were to obtain information on the chemical characteristics of soils and ground water at the Jameco site in Phase I, and to make a preliminary evaluation of geohydrologic conditions at the site and vicinity in Phase II, using available data. A brief discussion of contamination regimes is included in the Phase II portion of the study.

METHOD

Phase I

A review was made of the information provided by Jameco Industries which was related to the disposal of metal plating wastes and contamination at the site. The approximate locations of the abandoned filled in unlined lagoons were staked out in the field, and discussions were held with Jameco Industries personnel who had observed the test drilling by Suffolk County Department of Health Services (SCDHS) in August 1981 when muck from the test holes was tested and found to contain abnormally high concentrations of metals (i.e. copper of 20,000.+ and 67,000.+ ppm). Test holes for this recent investigation were drilled at locations where it was considered most likely that remnant sludge would be found in the soils, and/or ground water.

appropriate sampling

The seven test holes were drilled with a CME-55, Hollow-Stem Auger drilling rig, which drills a 6 inch diameter hole, without the use of drilling fluid. Therefore, the soil and ground water samples obtained are not affected or diluted by drilling fluids such as water or mud. Soil samples were obtained by drilling with the auger casing bit to the desired depth, inserting a split-barrel sampler, 2 inch outside diameter, 1½ inch inside diameter, driving the sampler a vertical distance of 1½ to 2 feet, and withdrawing the sampler and removing the soil sample for testing. Continuous soil samples were taken at five locations where it was considered most likely that contamination would be found. The test holes were drilled to depths of about 19 feet below ground surface and a ground water sample was taken from each test hole using the Kemmerer Type Underwater Sampler. After the ground water sample had been taken from each test hole, the water sampler was cleaned and rinsed with distilled water before obtaining the next water sample.

One test hole was installed upgradient from the known locations where plating wastes had been discharged at the site. The chemical characteristics of the soil and ground water from this test hole are considered to be representative of background,

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or ambient, conditions.

Phase II

Information was obtained on geohydrologic conditions in the study area from New York State Department of Environmental Conservation (NYSDEC) at Stony Brook, New York, from SCDHS offices in Hauppauge, and from the Ground Water Branch of the U.S. Geological Survey in Syosset, New York.

At the NYSDEC offices it was possible to examine maps of the study area and select nearby wells which had pertinent geohydrologic data. The SCDHS was able to provide water quality data on computer printouts for review of wells which they selected near the Jameco property. In this situation it was not possible for me to select wells which I considered to be relevant for this study, nor was it possible to obtain locations of the wells for which information was provided. At the library of the USGS office in Syosset, it was possible to review published reports on geohydrologic conditions in the study area and also to study the results of previous detailed investigations of ground water contamination from metal plating wastes in a geohydrologic setting which is similar to that at the Jameco site. The results of the Phase II study were synthesized with the findings from Phase I to prepare this preliminary evaluation of geohydrologic conditions at the Jameco site and vicinity.

FINDINGS

Hydrogeology Data

Regional Geohydrologic Conditions

Information on geohydrologic conditions in the region was obtained primarily from U.S. Geological Survey, Professional Paper #1085 (see Appendix A, References). missing The major aquifers are the upper glacial outwash sand and gravel deposits, about 75 to 100 feet thick, and the Magothy Formation which is a micaceous, silty fine to medium sand about 800 to 1000 feet thick. The glacial sands and gravels are separated from the underlying Magothy Formation by the relatively impermeable Gardiner's Clay throughout most of the study area. The general slope of the water bearing formations is to the south and southeast, and the depth to ground water table in the upper glacial aquifer is from about 5 feet to 20 feet below the ground surface. The regional water table configuration is shown on Figure 1, Map of Area, and the directions of ground water flow to the south and southeast are shown by green arrows. Regional ground water flow in the glacial aquifer is essentially horizontal, parallel to the ground water table at rates of about 1 foot to 4 feet per day, with an average rate of about 2.5 feet per day (see Figure 2, Geohydrologic Cross Section).

Also shown in Figure 1 is the location of the Jameco plant site, nearby Babylon landfill, Belmont Lake, and other pertinent features. The approximate outline of the existing leachate plume from the landfill, and the estimated former plume from Jameco are shown on Figure 1. The estimated ground water flow below the landfill is about 1 million gallons per day, with about 60,000 gallons per day of leachate generated and moving from the site to the southeast. The estimated peak flow of contamination from the Jameco site during the worst conditions (between mid 1960s and 1975) was probably only a small fraction of the flow from the landfill. The sludge material was reported to have been removed from the old lagoons, and the lagoons were filled in 1975, and it is assumed that the formation of a more highly concentrated plume from the Jameco ceased at that time. Considering the average rates of ground water flow (2.5 feet per day), and the distance between the old lagoons and Belmont Lake, which is about 3,000 feet, then the "tail-end" of the plume would have reached Belmont Lake in about 1978. According to information provided by the State of New York, a well at 47 Oswego Place (southeast of Jameco) was reported to have a hexavalent chromium content in the ground water of 69 ppm in June 1976. None of the ground water or soil samples tested in 1979, 1981 and 1982 reported any measureable hexavalent chromium.

Detailed studies of ground water contamination from a metal plating operation at Massapequa, about 6 miles west-southwest of the Jameco site, provide an important basis for evaluating the contamination regime at Jameco. The geohydrologic setting and the method of disposing of waste products was similar at the two locations, and according to information provided in the published report (see References, USGSWSP 1879-G), the plating wastes at Massapequa formed a plume from the discharge ponds to Massapequa Creek, about 4,300 feet to the south. The plume was as much as 70 feet thick and 1,000 feet wide at its maximum, and before treatment, the hexavalent chromium concentration in ground water was about 40 ppm. Since treatment, the concentrations of chromium decreased to less than 5 ppm. It was estimated that less than 10 per cent of the chromium contamination in ground water at Massapequa reached Massapequa Creek as surface water flow. None of the contaminated ground water in the glacial aquifer was reported to have reached the underlying Magothy Formation. The dimensions (width and depth) of the former Jameco plume are based on the information obtained from USGS WSP 1879-G which define the Massapequa plume.

Information on chemical analyses of native ground water in the study area indicates that background concentrations of nickel are from 2 to 7 ppm, arsenic 0 to 11 ppm, lead 0 to 4 ppm, and mercury up to 0.8 ppm. Data provided by SCDHS for wells in the Wyandanch-North Babylon area showed iron content in ground water as high as 18 ppm, copper up to 4.9 ppm, and the organic solvent 1-1-1 trichloroethane as high as 114 ppm. Additional data on organic compounds in ground water show dangerously high levels of 1-1-1 trichloroethane, and tetrachloroethylene from wells which appear to be outside of the influence of theJameco plant site. Water quality data are shown on Table 1.

Site Geohydrologic Conditions

Information on site geohydrologic conditions is based on recent test drilling and sampling, test drilling and sampling by SCDHS in 1979 and 1981, and well records obtained at NYSDEC for the two permanent site wells, and the nearby public water supply well of the Suffolk County Water Authority.

Permeable deposits of sand and gravel extend from the ground surface to a depth of about 100 feet, with the depth to the ground water table of about 10 to 12 feet below ground surface in December 1981. The upper sands and gravels are underlain by an impermeable gray clay from a depth of about 100 to 137 feet. The log of the Suffolk County Water Authority municipal well, which is screened from about 590 to 670 feet below ground surface is shown in Table 2. As can be seen on Table 2, clay layers in excess of 100 feet were encountered between the shallow water bearing zone into which the plating wastes were discharged, and the screened portion of the municipal well from which ground water is pumped.

No detailed information is available on the direction of ground water flow in the shallow aquifer at the Jameco plant site. Based on the regional water table contours shown in Figure 1, the flow is from the old lagoons toward the central portion of Belmont Lake, which is about south 55 degrees east. The locations of the former lagoons and the 7 test holes drilled for this investigation are shown on Figure 3, Site Plan. Also shown on Figure 3 is the estimated location of the former plume at the Jameco site, which could have formed during the time the metallic wastes were discharged into the old lagoons (mid 1960s to 1975). Figure 4, Jameco Site and Vicinity, shows a different viewpoint of the Jameco plant site, former lagoons, test wells installed by SCDHS in 1979, and the estimated extent of the former plume from the Jameco site. The estimated direction of ground water flow and the location of site Cross Section A-A1 are also shown on Figure 4. The vertical relationship of the ground surface, the ground water table, the former lagoons at the Jameco site, and the estimated extent of the former Jameco plume are shown in Figure 5, Site Cross Section A-A1. The locations of test holes B1 through B5 drilled for this investigation, and temporary test wells Site #1, Site #2, Site A-2 and Site C-1 drilled by SCDHS in 1979 have also been plotted in Figure 5, along with ground water quality data on iron, nickel and some toxic organic compounds -- trichloroethylene, tetrachloroethane, and 1-1-1 trichloroethane. ✶ The water quality data have been tabulated in Table 1.

Two permanent wells are in use at the Jameco plant:

1. A water supply well 64 feet deep with 6 inch diameter steel casing and 10 feet of 6 inch diameter steel screen, the yield of this well is 150 gallons per minute with 7 feet of drawdown. This well is located about 100 feet to the west of test hole #6 (see Figure 4), and about 100 feet east of the Jameco plant septic discharge system.

2. A diffusion well 45 feet deep, with 6 inch diameter steel casing and 15 feet of 6 inch diameter steel screen. The diffusion well is used to recharge plant cooling water (about 30,000 gallons per day), it is located about 300 feet west of the plant water supply well.

The highest concentrations of metal waste discharge products were found in soil samples taken from the Jameco site during the test drilling by SCDHS in August 1981. The locations of these test holes are not accurately known, but at two of the holes in the south part of former lagoon #3, it was reported that green muck was encountered within a depth of about 5 feet below ground surface. The results of

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the chemical tests of the soil samples are tabulated on Table 3, Soil Test Data, which indicates extremely high amounts of copper, chromium and nickel, but no hexavalent chromium.

The soils investigation of December 1981 was conducted with one of the main objectives to determine if the former lagoons had been completely cleaned out and the test holes were drilled at locations where it was expected that high concentrations of plating wastes might be encountered. Test boring #4 was drilled at the exact location where a Jameco Industries employee had reported that muck was removed from one of the SCDHS test borings, but no significant amounts of metal were found in the soils or ground water from test boring #4 (see Table 3). As shown on Table 3, considerably above normal concentrations of nickel, chromium and copper occurred in the soil samples from test holes B1, B2, B3, and B5, drilled in the former lagoons, slightly above normal in test hole B7, and about normal concentrations in B4 and B6.

Studies of the absorption properties of outwash sand and gravel deposits at the site where ground water contamination occurred from metal plating wastes in Massapequa, indicate that metallic ions (i.e. chromium and cadmium) are sorbed by the amorphous iron oxyhydroxide and iron oxide coatings on the aquifer material (see references). Based on the soil tests at the Jameco site, it appears that absorption of metallic substances is occurring in the soils underlying the former lagoons.

SUMMARY, CONCLUSIONS

Contamination of soil and ground water has occurred at the Jameco site. Extremely high concentrations of metallic substances (copper, chromium, nickel) were found in soil samples taken from former lagoon #3 by SCDHS. The recent soil tests of December 1981 indicated considerably above normal metal concentrations of the soils underlying the former lagoons. Ground water samples by the SCDHS in June 1976 indicated the presence of 69 ppm of hexavalent chromium in a well to the southeast of the Jameco site. In 1979, ground water samples taken from the adjacent area east of the Jameco plant showed above normal amounts of nickel, but all other metallic ions were at or below ambient values. Of the 7 test holes drilled in December 1981, from which ground water samples were obtained and tested, none of the metallic ions were above background levels, and no chromium or hexavalent chromium was detected.

2 invalid sampling data

It appears likely that most of the high concentration ground water contamination which occurred on the Jameco site between the mid 1960s and 1975, has probably moved past Belmont Lake, which is about 3,000 feet southeast of Jameco. Based on the experience with the ground water contamination from metallic plating wastes at Massapequa, it was considered that there was no immediate danger to municipal water supply wells 2.5 miles downgradient from the plume, due to the slow rate of movement and the dilution of the contaminated water.

There may be some small pockets of sludge in the southern part of lagoon #3. However, it does not appear to be a source of ground water contamination based on the results of tests on ground water samples from test boring #4, which is within 10 feet of the sludge reported in the SCDHS test boring.

The water supply well for Jameco Industries is located within about 100 feet horizontal distance from the plant septic tank discharge system. During the time the water supply well is pumped for plant use, the water level in the well may be drawndown as much as 7 feet below the static ground water level. This could induce a flow of contaminated water (contaminated with bacteria and nitrogen compounds) from the septic plant discharge. This could be the source of the reported high nitrogen content in the water being discharged from the plant.

There are serious ground water contamination problems in the study area which are not related to the Jameco Industries operation. The Babylon landfill is at present generating about 60,000 gallons per day (about 22 million gallons per year) of polluted ground water which moves southward for a distance of about 5 miles to Great South Bay. Present plans call for expanding the landfill without taking corrective steps to prevent additional serious ground water pollution. Tests for organic compounds in ground water east of the Jameco site, and outside of the influence of Jameco, show serious gound water pollution by toxic chemicals, in concentrations which are considered to be carcinogenic.

RECOMMENDATIONS

If it is considered necessary to explore for, and remove, metal plating sludge from lagoon #3, it is adviseable to use a backhoe. The reported depth of the sludge is less than 6 feet, and a backhoe can be used to excavate ditches and trenches up to 20 feet deep in relatively short time.

Considering the proximity of the plant water supply well to the septic tank discharge system, it is recommended that samples of ground water be taken and tested periodically for bacteria and nitrogen compounds (ammonia and nitrates). Additional tests are recommended for trihalomethanes, and several other substances, i.e. boron.)

If the State of New York requires that additional investigation be carried out to determine if there is a ground water contamination plume from Jameco, it would be possible to use emergency fire fighting supply wells, and test wells for the Carll's River Recharge study to obtain ground water samples and to measure ground water levels. This may obviate the necessity for installing additional monitor wells offsite.

It is recommended that consideration be given to installing several permanent ground water monitor wells on the Jameco plant site. A minimum of 4 wells would include one upgradient background well, and three wells on the southeast portion of your property.

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The following figures and tables complete this report:

Very truly yours,

Leo M. Page

Leo M. Page

LMP:sk

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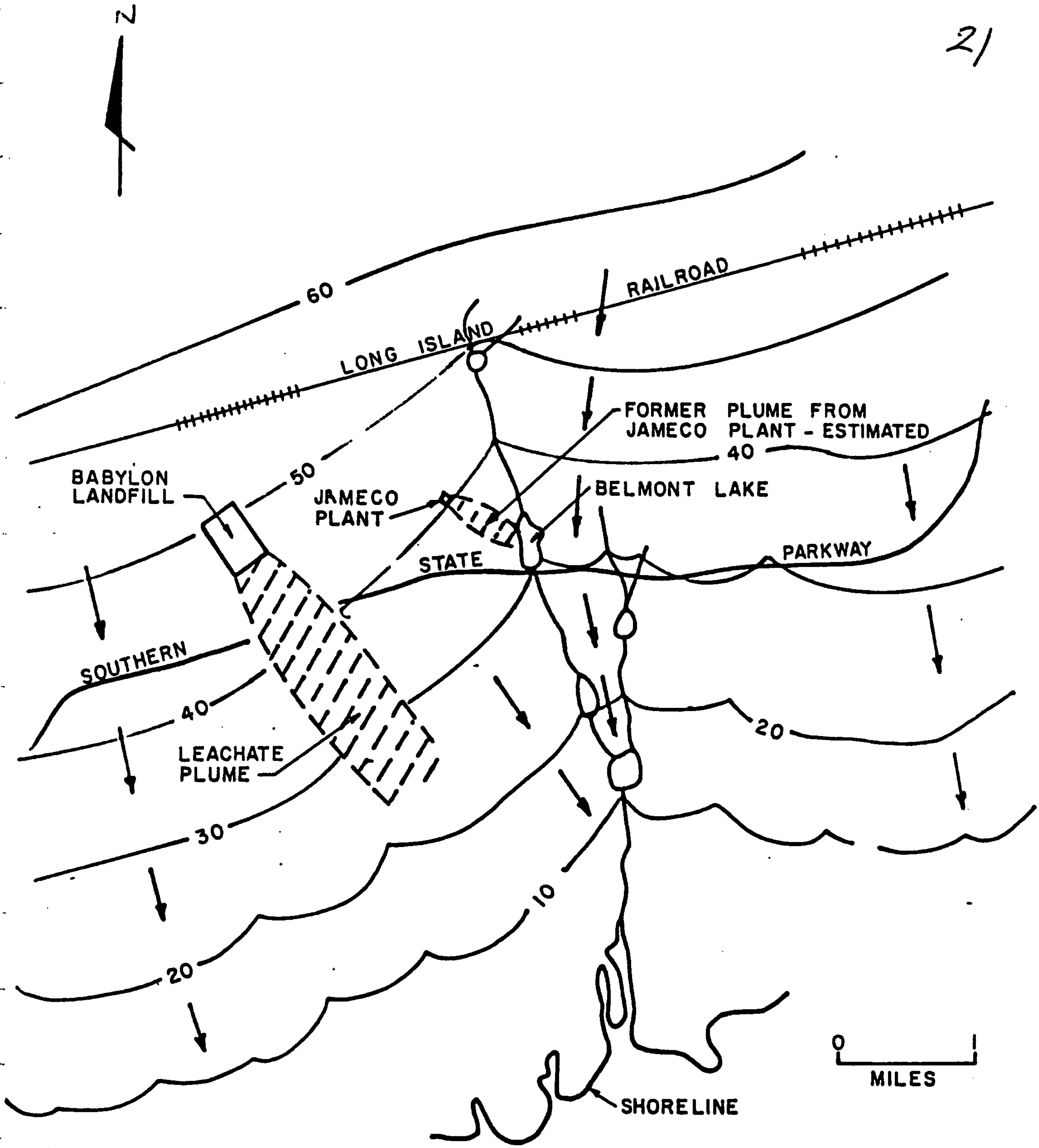

REFERENCE

MODIFIED FROM PLATE 3,
U.S.G.S.W.S.P. 1768.

LEGEND

— 10 — GROUND-WATER CONTOUR ELEV. IN FEET ABOVE SEA LEVEL

DIRECTION OF GROUND-WATER FLOW

MAP OF AREA

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SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF SUFFOLK

THE STATE OF NEW YORK, Plaintiff,	:	**COMPLAINT**
-against-	:	Index No.
JAMECO INDUSTRIES, INC., Defendant.	:	

The State of New York by its Attorney General, Robert Abrams, brings this civil action against the Defendant Jameco Industries, Inc. ("Jameco") and for its causes of action complains and alleges as follows:

Nature of Action

1. This is a civil action brought by the State of New York for damages, penalties, and injunctive relief under the Environmental Conservation Law of the State of New York ("ECL"), particularly, Titles 5 and 8 of Article 17; Title 9 of Article 27; and the common law of nuisance arising from violations by Jameco of the effluent discharge, disposal and water quality requirements and standards of these aforementioned statutes and for creation of a public nuisance and health hazard all at its principal place of business at 248 Wyandanch Avenue, Wyandanch, New York and its environs.

Venue

2. The basis for venue, pursuant to Section 503(c) of the Civil Practice Law and Rules, is that Jameco's principal

office is located in Suffolk County and the cause of action arose there.

Parties

3. Plaintiff State of New York as a body politic and a sovereign entity brings this action on behalf of itself and as parens patriae, trustee, guardian and representative on behalf of all residents and citizens of the State of New York, particularly those citizens who reside in Wyandanch and the Township of Babylon, County of Suffolk and who utilize or are exposed to the groundwater, wells, and surface water in and around those towns.

4. Jameco is a domestic corporation organized and incorporated under the laws of the State of New York and has its principal office and place of business at 248 Wyandanch Avenue, Wyandanch, New York.

5. Jameco has engaged in and continues to engage in the business of manufacturing and selling at wholesale brass plumbing products and plastic moldings.

Statement of Facts

Background

6. Jameco is located between Wyandanch and Mount Avenues in Wyandanch about one-half mile northwest of Belmont Lake and approximately 200 feet from the Suffolk County Water Authority water tower and wells ("Jameco Plant Site"). Belmont Lake is used for recreational purposes and fishing by the residents of the Town of Babylon. The Suffolk County Water

Authority water tower and wells supply public drinking water for the Wyandanch area.

7. Jameco uses an electroplating coating process as part of its manufacturing processes. Jameco produces and has produced as wastes of this process solutions containing high concentrations of nickel, copper, cyanide, chromium, and lead Hereinafter referred to as the "electroplating wastes". Such wastes are hazardous wastes within the meaning of ECL Section 27-0901, Title 9, Article 27 and regulations, etc.

8. Chromium and chromates (chromium salts) have corrosive effects in the human intestinal tract and the kidney. Copper and its compounds can cause vomiting and nausea in humans, as well as blood and liver damage. Nickel and its compounds, if ingested, can damage the human liver and central nervous system. All the above substances are toxic to many species of marine life and plants. The toxic effects of ingested cyanide include blood, heart, and brain damage, and impairment of cellular respiration. Cyanide is also a known cause of birth defects.

9. Jameco, as part of its manufacturing processes, operates an industrial waste treatment facility (the "waste treatment facility") to treat its industrial wastes (the "industrial wastes") including the "electroplating wastes." Jameco's industrial wastes and electroplating wastes are expelled from the waste treatment system at various points called "discharge points." The wastes expelled from these

discharge points are hereinafter referred to as "effluent discharges."

10. Prior to 1975, the Jameco waste treatment facility discharged into an area referred to as the "Old Cesspools." Starting sometime in 1975 and thereafter, the waste from the treatment system has been discharged in an area referred to as the "New Cesspools." These discharge areas will hereafter be referred to collectively as the "Jameco Cesspools."

11. Jameco employs, as part of the manufacturing and electroplating processes described in paragraphs 7 through 10 *supra* of the Complaint, oil ("Cutting Oil") to lubricate and clean certain machinery and equipment.

12. This Cutting Oil is petroleum within the meaning of Section 172 of the New York Navigation Law.

13. The groundwater beneath the Jameco Plant flows southeast to Belmont Lake. The groundwater at the Jameco Plant site is classified GA, "suitable for drinking" pursuant to 6 New York Codes, Rules and Regulations, Section 701.5. Belmont Lake is classified C, suitable for "fishing and other purposes" pursuant to Section 701.3.

History of Regulation

14. From at least 1964 to the present Jameco has been subject to periodic investigation, first by the Suffolk County Department of Health Services ("SCDHS") (known as the Department of Environmental Control between 1971 and 1979) and eventually by the New York State Department of Environmental Conservation ("DEC") jointly with the SCDHS.

15. Commencing on June 13, 1975 and continuing to the present Jameco has been subject to the effluent discharge and pollution control requirements of permits issued by the State of New York under the State Pollutant Discharge Elimination System ("SPDES") authorized by Title 8 of Article 17 of the ECL and the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq. The initial permit was effective June 13, 1975 (the "1975 Permit"). It was renewed, effective May 1, 1980 (the "Renewed Permit"). Both the 1975 permit and the Renewed Permit are attached hereto and made part hereof as Exhibit A.

16. The 1975 Permit required that Jameco inter alia, comply with certain Initial Effluent Discharge Limitations by July 13, 1976 (the "Initial Effluent Discharge Limitations") and that it meet certain more stringent discharge limitations thereafter (the "Final Effluent Discharge Limitations") all as specifically set forth in that Permit.

17. In addition the 1975 Permit required that Jameco comply inter alia, with the following pollution control and abatement requirements:

> (a) That all sludge (precipitated solid matter produced as a residue of the Jameco industrial waste treatment system process) from an area of the Jameco Site referred to as the "Sludge Lagoons" be dug up by an approved industrial scavenger and removed to an authorized disposal site outside Suffolk County;
>
> (b) That certain effluent discharges be monitored on a specified scheduled basis and that accurate records and testing results be kept;
>
> (c) That test procedures used to monitor Jameco effluent discharges conform to certain specified test methods;

(d) That Jameco inform the State or County of all effluent discharge violations;

(e) That no sludge or other waste pollutant removed or resulting from the waste treatment system shall be disposed of in such a manner as to enter surface water or groundwater of the state.

18. The Renewed Permit continued Jameco's obligations with respect to discharging industrial and electroplating wastes, handling and removal of sludge, and monitoring of disposal and discharges and maintenance of records.

History of Violations

General

19. From 1964 to the issuance of the 1975 Permit in 1975, investigations by SCDHS revealed repeated violations by Jameco of the existing County and State pollution control and health laws and regulations.

20. Commencing on June 13, 1975, DEC and SCDHS inspections, and review of Jameco's monitoring records have revealed repeated violations by Jameco of its SPDES permit requirements including discharging industrial and electroplating wastes beyond the Initial Discharge Limitations and, after July 13, 1976, discharging such wastes beyond the Final Effluent Discharge Limitations. The dates of the detected effluent discharge violations include November 10, 1975; July 19, 1977; July 5, 1978; July 31, August 21, September 11, September 18, December 11, and December 18, 1979; March 20, August 20, and October 29, 1980; and June 24, 1981.

21. Upon information and belief Jameco, since June 13, 1975 has been consistently and repeatedly in violation

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of the SPDES Initial Effluent Discharge Limitations and since July 13, 1976 the Final Effluent Discharge Limitations of the 1975 Permit and Renewed Permit, and such violations are not limited to the detected violations set forth in Paragraph 20, <u>supra</u>.

22. In April 1980, Jameco was fined and eventually paid a $2,000 fine for SPDES effluent discharge violations.

23. On June 30, 1981 Jameco entered into a consent agreement with SCDHS, which specified, <u>inter alia</u>,

> By September 2, 1981, Respondent [Jameco] agrees to abate all discharges of hazardous or toxic materials that would constitute violations of Article 12 of the Suffolk County Sanitary Code. This means in essence that Respondent agrees to insure from and after September 2, 1981, that his discharges of industrial wastes will conform to the standards promulgated pursuant to the Environmental Conservation Law of the State of New York and pursuant to any permit issued therefrom. Consent agreement annexed hereto as Exhibit B.

24. On September 8 and September 23, 1981 SCDHS took samples of Jameco effluent discharges which showed such discharges to be in excess of the Renewed Permit Effluent Discharge Limitations.

25. Upon information and belief since September 2, 1981 Jameco has consistently and repeatedly been in violation of the SPDES Renewed Permit, Effluent Discharge Limitations and the June 30, 1981 consent agreement requirement set forth in Paragraph 23, <u>supra</u>.

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Improper Use and Maintenance of Waste Treatment System

26. Upon information and belief, Jameco's continuous and repeated violations of the Effluent Discharge Limitations as set forth in paragraphs 21 through 25 supra, were and are due in part to the improper use, maintenance, and cleaning of the waste treatment system described in paragraph 9, supra.

27. Upon information and belief the improper use, maintenance, and cleaning of this waste treatment system includes,

> (a) Failing to clean the system of sludge and contaminants in a timely and proper manner;
>
> (b) Discharging at least once a day large volumes of effluent discharge through the system, at a level far beyond the capacity the system was and is designed to effectively treat;
>
> (c) Bypassing or diverting large volumes of effluent discharge, on a periodic basis, to avoid treatment by the waste treatment system;
>
> (d) Allowing larger than permitted deposits of sludge and other contaminants to accumulate in the waste treatment system;
>
> (e) Discharging through the waste treatment system substances and effluent discharges it was not designed or authorized to treat.

28. Jameco's improper use, maintenance, and cleaning of the waste treatment system as described in paragraphs 26 and 27, supra was and is in violation of the pollution control and abatement requirements of the 1975 and Renewed Permits.

29. Jameco's improper use, maintenance, and cleaning of the waste treatment facility has resulted in the buildup of excessive quantities of sludge and waste containing high

concentrations of nickel, cyanide, copper, and chromium in the Jameco Cesspools, described in paragraph 10, supra.

Monitoring Violations

30. Jameco was further required by the 1975 and Renewed Permits to:

(a) Monitor its effluent discharges on a specific scheduled basis and maintain accurate records and test results of that monitoring;

(b) Perform the sample testing and monitoring according to specified test methods and procedures.

(c) Notify the State or County as to all discharge violations.

31. Upon information and belief Jameco has violated these monitoring provisions in that it has, *inter alia*,

(a) Failed and continues to fail to prepare, maintain and submit accurate monitoring reports in a timely manner;

(b) Failed and continues to fail to report in every instance effluent discharge violations;

(c) Failed and continues to fail to employ the testing procedures and methods specified by those permits.

Fraudulent Failure to Remove Old Sludge Lagoons

32. The 1975 Permit required Jameco to remove the sludge from the Sludge Lagoons prior to July 13, 1976.

33. The sludge deposited in the Sludge Lagoons contained concentrations of copper, nickel, chromium, and

cyanide, which are hazardous wastes within the meaning of ECL Section 27-0901, Title 9, Article 27 and corresponding regulations.

34. Jameco fraudulently represented to DEC and SCDHS that it had completely dug up and removed all the sludge from the Sludge Lagoons. The last such fraudulent representation was contained in a letter sent to SCDHS at the direction of Jameco, dated April 29, 1980.

35. On August 20, 1981 soil samples were taken by SCDHS on Jameco's premises in the area where the Sludge Lagoons had been located. Laboratory analysis of those samples indicated that the four (4) soil samples contained the following levels of contamination:

Sample #	1	Copper	1,659.8	parts	per	million (ppm)
		Chrome	2,060.3	"	"	"
		Nickel	514.9	"	"	"
	2	Copper	20,507.1	"	"	"
		Chrome	19,258.0	"	"	"
		Nickel	7,544.0	"	"	"
		Cyanide	233.9	"	"	"
	3	Copper	15,188.2	"	"	"
		Chrome	18,363.4	"	"	"
		Nickel	6,332.2	"	"	"
		Cyanide	23.6	"	"	"
	4	Copper	67,297.0	"	"	"
		Nickel	656.9	"	"	"
		Chrome	9,582.3	"	"	"

36. The high concentrations of copper, nickel, and cyanide found in the (four) 4 soil samples described in paragraph 35, <u>supra</u> are present because the sludge was not dug

up and removed by Jameco as required by the 1975 Permit and all or part of that sludge remains on the Jameco Plant Site.

37. Jameco did not and has not properly disposed of or stored the sludge in the Sludge Lagoons pursuant to ECL Article 27, Titles 7 and 9, and has failed to dig up and remove that sludge as required by the Jameco Permit.

38. Jameco obtained the Renewed Permit based upon its misrepresentation to DEC and SCDHS that it had removed the sludge from the Sludge Lagoons.

39. The soil at the Jameco Plant Site is sandy and extremely porous and permeable.

40. The groundwater in the area of the Sludge Pits lies approximately 10 feet below the surface.

41. The sampling described in paragraph 35, supra, indicated that the sludge exists at least 5 feet below the surface.

42. Upon information and belief, the sludge in the Sludge Lagoons has leached, is leaching, and will leach into the groundwater beneath the Jameco Plant Site.

Cutting Oil Dumping and Contamination

43. As part of the sampling conducted by SCDHS on August 20, 1981 at the Jameco Plant Site, as described in paragraph 35, supra, an area directly behind the warehouse ("Warehouse Area") was sampled, where the ground appeared to be darkly stained by oil, to determine if oil discharge in fact existed.

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44. The test analysis revealed that the soil contained 2,565.6 parts per million of oil.

45. Upon information and belief, Jameco is dumping and/or discharging or has dumped or discharged the Cutting Oil, as described in paragraphs 11 and 12 supra, into the ground in the Warehouse Area.

Groundwater (Water Quality) Contamination

46. DEC has established that no person (or corporation) can discharge certain chemical components into the groundwater of the State of New York above certain levels, which are set forth in 6 New York Codes Rules and Regulations, Part 703.

47. On or about August 27-28, 1979, SCDHS took samples of the groundwater upstream of the direction of the groundwater flow from the Jameco Plant Site and the Sludge Lagoons and downstream from the Jameco Plant Site and Sludge Lagoons.

48. The groundwater downstream from Jameco was found to have high concentrations of nickel and iron. The groundwater upstream of the Jameco Plant Site did not contain those high levels of nickel and iron.

49. Upon information and belief the contaminated levels of nickel and iron found downstream of Jameco resulted, from the violation by Jameco of the 1975 and Renewed Permits, including but not limited to:

(a) Discharge of chemical components beyond the effluent discharge limits of those permits;

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(b) Failure to remove the sludge in the Sludge Lagoons;

(c) Failure to use, maintain, and clean the waste treatment system properly;

(d) Failure to adequately clean the Jameco Cesspools.

Surface Water Contamination

50. On information and belief the groundwater under the Jameco Plant site moves in a southeasterly direction toward Belmont Lake at the rate of approximately one to two feet per day.

51. Upon information and belief the contamination levels caused by Jameco in the downstream groundwater, as described in paragraph 48 supra, already has or will eventually enter the surface waters contained in Belmont Lake.

Injury

52. Due to the existence of contamination in the soil at the Jameco Plant Site, caused by the acts and omissions of Jameco described in this Complaint, particularly paragraph 49, supra, there exists harm and the threat of harm to the groundwater, wells, and surface waters, including the public and private drinking, recreation and fishing waters in the area of Wyandanch and the Township of Babylon.

53. The contamination of the soil and the acts of Jameco referred to in Paragraph 49 and 52, supra, create harm and the threat of harm to the health and safety of the People of the State of New York, particularly those living in Wyandanch and the Township of Babylon and their environs, constituting a

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continuing public nuisance in violation of the common law and Real Property Actions and Proceedings Law, § 841.

54. Plaintiff has no adequate remedy at law.

First Cause of Action

55. Plaintiff repeats and realleges paragraphs 1 through 25 of the Complaint as if set forth herein at length.

56. Jameco's continued discharge, after September 2, 1981 of effluent wastes in excess of the Discharge Limitations set forth in the Renewed Permit constitutes continued and repeated violations of Sections 17-0803 and 17-0807 of Title 8 of Article 17 and Section 71-1929 of Title 19 of Article 71 of the ECL.

Second Cause of Action

57. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 29 of the Complaint as if set forth here at length.

58. Jameco's continued failures since June 13, 1975, in violation of the 1975 and Renewed Permits to use, maintain, and clean the waste treatment system as set forth in paragraph 27, constitutes a continuing and repeated violation since that date of Sections 17-0803 and 17-0807 of Title 8 of Article 17 and Section 71-1929 of Title 19 of Article 71 of the ECL.

Third Cause of Action

59. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 18 and 30 and 31 of the Complaint as if set forth herein at length.

60. Jameco's continued and repeated failure since June 13, 1975 to accurately, completely, and properly monitor its effluent discharges in compliance with the 1975 and Renewed Permits constitutes a continuing and repeated violation since that date of Section 17-0803, Title 8 of Article 17 and 71-1929 Title 19 of Article 71 of the ECL.

Fourth Cause of Action

61. Plaintiff repeats and realleges each and every allegation of paragraphs 1 through 18 and 32 through 42 as if set forth herein at length.

62. Jameco's failure to dig up and remove the sludge from the Sludge Lagoons, since July 13, 1976 in violation of the 1975 Permit, constitutes a continuing and repeated violation of Section 17-0807, Title 8, Article 17 and Section 71-1929, Title 19, Article 71 of the ECL.

Fifth Cause of Action

63. Plaintiff repeats and realleges each and every allegation of paragraphs 1 through 18 and 32 through 42, as if set forth herein at length.

64. Jameco's misrepresentations to DEC and SCDHS after July 13, 1976 that it had removed the sludge from the Sludge Lagoons, and its obtaining of the Renewed Permit based upon these misrepresentations constitute a continuing and repeated violation since that date of Section 71-1929, Title 19, Article 71 of the ECL.

Sixth Cause of Action

65. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 29 and 32 through 51, as if set forth herein at length.

66. Jameco's actions and omissions, since June 13, 1975, allowing excessive amounts of effluent discharges, improperly using, maintaining, and cleaning the waste treatment system and Jameco Cesspools, and failing to clean up the sludge from the Sludge Lagoons, created a groundwater condition downstream of the Jameco Plant Site in contravention of the water quality standards and rules and regulations adopted by the State of New York pursuant to Sections 17-0301 and 17-0303, Title 3, Article 17 of the ECL all in violation of Sections 17-0501 and 17-0511, Title 5, Article 17 of the ECL.

Seventh Cause of Action

67. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 18 and 32 through 42 of the Complaint as if set forth herein at length.

68. Jameco's continued possession on the Jameco Plant Site of the sludge in the Sludge Lagoons without a permit constitutes a continuing and repeated violation of Section 27-0913, Title 9, Article 27 of the ECL.

Eighth Cause of Action

69. Plaintiff repeats and realleges each and every allegation of paragraphs 1 through 54 of the Complaint as if set forth herein at length.

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70. Jameco by virtue of the acts and omissions described set forth in paragraphs 1 through 54 of the Complaint, particularly paragraphs 20, 21, 25, 27, 29, 37, 45, and 49,Jameco has negligently created and maintained a continuing public nuisance harming and threatening harm to the groundwater, wells, and surface water of the State of New York, as well as to the People of New York, as set forth in paragraphs 52 and 53.

Ninth Cause of Action

71. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 54 of the Complaint as if set forth herein at length.

72. Section 519 of the Restatement (Second) of Torts, provides in pertinent part:

> "One who carries on an abnormally dangerous activity is subject to liability for harm to the person, land or chattels of another resulting from the activity, although he has exercised the utmost care to prevent harm."

73. Jameco knew or should have known that the handling, discharge, treatment, disposal, and storage of its effluent discharges, sludge, and electroplating and industrial wastes were abnormally dangerous activity and could cause or threaten to cause serious personal injury or health problems, property damage, or ecological harm to the residents and environment of its surrounding area.

74. The improper actions and omissions by Jameco with respect to the discharge of its effluent discharges and electroplating and industrial wastes, the failure to remove the sludge from the Sludge Lagoons, the use, maintenance, and

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cleaning of its waste treatment system and cesspools, and the handling and disposal of its machine Cutting Oil, all as described in the Complaint were and are abnormally dangerous activities.

75. Jameco's manner of conducting these abnormally dangerous activities caused harm and damage and threatens greater harm and damage to the groundwater, wells, and surface water, as well as to the citizens of New York State, in the area and immediate environs of the Jameco Plant Site, as set forth in paragraphs 52 and 53.

76. Jameco is strictly liable for all direct and consequential damages resulting from the improper actions and omissions set forth in paragraphs 20, 21, 25, 27, 29, 37, 45, 49 and 74 of the Complaint, supra.

Tenth Cause of Action

77. Plaintiff repeats and realleges each and every allegation set forth in paragraphs 1 through 54 of the Complaint as if set forth herein at length.

78. Since 1964, and particularly since June 13, 1975, defendant Jameco has been continually and repeatedly warned by DEC and SCDHS, that its excessive effluent discharges, the sludge in the Sludge Lagoons, and its use, maintenance, and cleaning of its waste treatment system and cesspools were all in violation of the statutes and regulations of the State of New York and Suffolk County.

79. As set forth in paragraph 22, supra, Jameco has been fined for certain failures to comply with State and Suffolk

County laws and regulations, and permits regarding effluent discharges and pollution control and abatement.

80. As a result of these warnings, Jameco knew that its continued improper disposal of effluent discharges, improper use, maintenance, and cleaning of the waste treatment system and Jameco Cesspools, and unauthorized and improper storage of the sludge in the Sludge Lagoons would result in the release of hazardous waste materials and other contamination into the groundwater, wells, and surface water in the area of the Jameco Plant Site, thereby creating substantial and unreasonable interference with the environment of the surrounding area and with the health, safety, use, and enjoyment of the groundwater, wells, and surface water in the area of the Jameco Plant Site by the citizens of the State of New York, particularly those in Wyandanch and the Township of Babylon.

81. Despite the knowledge set forth in paragraph 80, supra, Jameco continued to perform the acts and omissions set forth therein. Such acts and omissions were intentional and unreasonable.

82. By virtue of the intentional and unreasonable acts and omissions as described in paragraphs 20, 21, 25, 27, 29, 37, 45, and 49, Jameco has intentionally created and maintained a continuing public nuisance as set forth in paragraphs 52 and 53 supra.

Eleventh Cause of Action

83. Plaintiff repeats and realleges each and every allegation set forth in paragraph 1 through 18 and 43 through 45

of the Complaint as if set forth herein at length.

84. Jameco actions with respect to the dumping of the Cutting Oil constitute a violation of Sections 173 and 192 of Article 12 of the Navigation Law of the State of New York.

WHEREFORE, Plaintiff requests that the Court grant the following relief:

1. On the First Cause of Action for continuous and repeated violation of the Effluent Discharge Limitations of the Renewed Permit from September 2, 1981 to the present that Jameco be fined, at the rate of $10,000 per day for each violation.

2 On the Second Cause of Action for continuous and repeated violations of the 1975 and Renewed Permits by improper use, maintenance, and cleaning of the waste treatment system and Jameco Cesspools:

a) That Jameco be fined at the rate of $10,000 per day;

b) That Jameco be required to remove all sludge and wastes from the area of the waste treatment system and Jameco Cesspools and properly maintain and clean the system and cesspools, thereafter.

3. On the Third Cause of Action for continuous and

rep ieco to accurately, completely, and

pro Ref. 33 fluent discharges, that Jameco be fined

at Complaint per day of violation.

ourth Cause of Action for Jameco's

fai emove the sludge from the Sludge Lagoons,

and subsequent fraudulent misrepresentations to New York State and Suffolk County with respect thereto, from July 13, 1976 to the present, that Jameco be fined at the rate of $10,000 per day of violation.

5. On the Fifth Cause of Action for fraudulent misrepresentation to the State of New York and the County of Suffolk that the sludge in the Sludge Lagoons had been dug up and removed, that Jameco's Renewed Permit be revoked pursuant to the terms of that permit if the sludge is not completely dug up and removed to a disposal site duly licensed for the receipt of such sludge within 90 days of judgment herein.

6. On the Sixth Cause of Action for contravening the water quality standards of New York State from at least August 27, 1979, to the present Jameco be fined at the rate of $10,000 per day of violation.

7. On the Seventh Cause of Action of storing hazardous wastes (sludge in the Sludge Lagoons) without a permit that Jameco be fined $25,000 per day for each day of violation.

8. On the Eleventh Cause of Action for discharge of the Cutting Oil that:

a) Jameco be fined $25,000 per day of violation;

b) Jameco be directed to remove all the Cutting Oil from the ground of the Jameco Plant Site and its environs including the groundwater, wells, and surface water.

9. Based upon all of the causes of action alleged herein, that defendant Jameco be ordered to:

a) Cease all acts and omissions causing discharge of effluents and industrial and electroplating wastes in excess of levels permitted in its Renewed Permit;

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b) Cease improper use, maintenance, and cleaning of the waste treatment system, Jameco Cesspools, and dumping of cutting oil;

c) Dig up all sludge from the Sludge Lagoons and have it removed by a duly licensed industrial scavenger to a disposal site, duly licensed for the receipt of such sludge;

d) Remove all sludge and wastes from the Jameco cesspools and properly maintain and clean those cesspools, thereafter;

e) Abate the nuisance at the Jameco Plant Site and its surrounding environs, including all groundwater, wells, and surface waters caused by the presence migration, and threat of migration of hazardous chemical wastes, by taking such action as the Court shall deem necessary and sufficient to abate completely and permanently the migration and threat of migration of hazardous chemical wastes, particularly but not limited to, copper, nickel, iron, chromium, cyanide, and Cutting Oil;

f) Provide safe drinking water to any person whose water supply (whether private or public) has been or will be contaminated by the public nuisance as set forth in Paragraphs 52 through 53.

10. Should Jameco fail to comply with the items set forth in paragraph 9(a) through (f) <u>supra</u>, as ordered by this Court, within 90 days of the entry of any order herein that defendant Jameco's permit for effluent discharge be revoked until Jameco demonstrates that such compliance can be achieved

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and for other and further relief that this Court deems just and proper.

DATED: New York, New York
October 28, 1981

ROBERT ABRAMS
Attorney General of the
State of New York
Attorney for Plaintiff
NANCY STEARNS
ROBERT L. OSAR
Assistant Attorneys General
Two World Trade Center
New York, New York 10047
Tel.:212-488-7825

REFERENCE NO. 34

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No.
Date: 12/9/91 Time: 315 [] AM; [X] PM

[] Incoming Call From: Telephone No.
Affiliation:

[X] Outgoing Call To: Paul George 1-516-751-7900 Telephone No.
Affiliation: NYSDEC - Stony Brook - Water Unit

Malcolm Pirnie Staff: Steven T. McNulty 1-908-214-2637
(Receiving or Calling) Name Telephone No.

SUMMARY OF [X] CONVERSATION [] AGREEMENT:

Mr. George informed me that there are no surface water intakes along the entire southern portion of Long Island, New York.

Follow-up Action:
(Specify)

Action By:
Name Action Due Date
Copy to:

[] Continued

1

REFERENCE NO. 35

MALCOLM PIRNIE, INC. **PROJECT NOTES**

To: File	Date: 12/24/91
From: Steven T. McNulty	Project Number: 8002-10-1
Subject: Nytest Environmental/NYSDEC Data Pack	Site Name: Jameco Industries, Inc.

Enclosed is a photocopy of the Summary Package of the Nytest (CLP) Data Package. The ~~ae~~ entire data package was obtained by MPI and was reviewed ~~and~~ on thru Quality Assurance/Quality Control procedures by an EPA certified data validation group, present in the MPI office. The analytical results presented in this report are the exact results presented in the data package.

nytest environmental inc.

Summary Package

nytest environmental inc.

Case Narrative

000027

nytest environmental inc.

Case Narrative

Log in No.: 8678

Volatile Fraction

Surrogates

All recoveries were within QC limits.

MS/MSD

Sample 9159-5 (8678005) was used for the MS/MSD. All RPD's were within QC limits. The recoveries of Benzene and Toluene were below the advisory QC limits in the MS & MSD. This is attributed to the sample matrix.

Method Blanks

In VBLKC8 Acetone was found at a concentration within QC limits. In VBLKC9 no compound was found.

Calibrations

All CCC and SPCC compounds passed all QC criteria in the initial and continuing calibrations. In the two continuing calibrations the % D of Acetone exceeded 35. In the continuing calibration on 6/19/91 the % D of 4-Methyl-2-pentanone exceeded 35.

Internal Standards

All responses and retention times were within QC limits.

Samples

Sample 9159-2 (8678002) had to be reanalyzed at a dilution of 1:100 due to the high concentrations of targeted compounds. No analytical problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in the hardcopy data package (and in the computer readable data submitted on floppy diskette) has been authorized by the Laboratory Manager or his designee, as verified by the following signature,

Douglas Sheely

7/17/91

nytest environmental inc.

__Traffic Reports__

nytest environmental inc.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical requirements						
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*BNA GC	*PEST PCB	*METALS	*OTHER
9159-1	8678001	X		X			X	X
9159-2	8678002	X		X			X	X
9159-3	8678003	X		X			X	X
9159-4	8678004	X		X			X	X
9159-5	8678005	X		X			X	X
9159-5DUP	8678006	X		X			X	X
9159-5MS	8678007	X		X			X	X
9159-5MSD	8678008	X		X			X	X
9159-6	8678009	X		X			X	X
9159-7	8678010	X		X			X	X
9159-8	8678011						X	

* Check Appropiate boxes

* CLP, Non-CLP
* HSL, Prority Pollutant

nytest environmental inc

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANICS ANALYSES

Sample ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEANUP	DIL/CONC FACTOR
9159-1	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-2	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-3	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-4	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-5	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-5DUP	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-5MS	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-5MSD	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-6	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-7	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D
9159-8	WATER	NYSASP '89	NA	AS REQ'D	AS REQ'D

nytest environmental inc

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

Sample ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED
9159-1	WATER	6/17/91	6/18/91	NA	6/19/91
9159-2	WATER	6/17/91	6/18/91	NA	6/19/91 6/20/91
9159-3	WATER	6/17/91	6/18/91	NA	6/20/91
9159-4	WATER	6/17/91	6/18/91	NA	6/20/91
9159-5	WATER	6/17/91	6/18/91	NA	6/19/91
9159-5DUP	WATER	6/17/91	6/18/91	NA	6/19/91
9159-5MS	WATER	6/17/91	6/18/91	NA	6/20/91
9159-5MSD	WATER	6/17/91	6/18/91	NA	6/20/91
9159-6	WATER	6/17/91	6/18/91	NA	6/19/91
9159-7	WATER	6/17/91	6/18/91	NA	6/19/91
9159-8	WATER	6/17/91	6/18/91	NA	NA

ny.test environmental inc.

INTERNAL CHAIN OF CUSTODY

Laboratory Person Responsible for Sample Name R Fletcher Title SC

Client NYSDEC Login No. 8678

Lab ID.	Client ID.	Lab ID.	Clie
8678 -001	9159-1	8678 011	9159-8
002	9159-2		
003	9159-3		
004	9159-4		
005	9159-5		
006	9159-5 Dup		
007	9159 MS		
008	9159 MSD		
009	9159-6		
010	9159-7		

Date	Time	Relinquished By	Received By	Purpose of Cus
6/19/91	300 pm	Signature [illegible]	Signature [illegible]	TCL VOA
6/20	800	Signature [illegible]	Signature [illegible] Golberg	TCN
6/25	100	Signature [illegible]	Signature [illegible]	storg
6/26	1000	Signature [illegible] Golberg	Signature [illegible]	storage
6/28	1000	Signature K. Madigan	Signature [illegible]	storage
		Signature	Signature	
		Signature	Signature	
		Signature	Signature	
		Signature	Signature	
		Signature	Signature	
		Signature	Signature	
		Signature	Signature	
		Signature	Signature	

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

Page ___ of ___

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn.

REPORT TO: Client Name NYSDEC Jamie Ascher
Address Bldg 40 SUNY
Stony Brook 11790
Phone 516 751 7900
Attn. Jamie Ascher

Project No.	Project Name NYSDEC	Date Shipped	Carrier
Sampler (Signature)	Analytical Protocol CLP	Air Bill No.	Cooler No.

	Sample I.D.	Date	Time Sampled	Sample Description	No. Of Containers	ANALYSIS REQUESTED
S 191	0617 9159-1	6/17/91	1250	Groundwater	5	VOA, Metals, Cyanide, Cr 6+
SH191	0617 9159-2	6/17/91	1100	Groundwater	5	" Same as Above "
S 191	0617 9159-3	6/17/91	945	Groundwater	5	" "
S 191	0617 9159-4	6/17/91	1015	Groundwater	5	" "
SH191	0617 9159-5	6/17/91	1155	Groundwater	5	" "
S1 191	0617 9159-5 dup	6/17/91	1155	Groundwater	5	" "
SH191	06179159-5MS	6/17/91	1155	Groundwater	5	" "
S 191	06179159-5MSDS	6/17/91	1155	Groundwater	5	" "
SH191	0617 9159-6	6/17/91	1220	Groundwater	5	" "
SH191	0617-9159-7	6/17/91	1320	Effluent	5	
S 191	0617-9159-8	6/17/91	1400	Soil	1	Total Chromium, Cadmium, Arsenic, Lead

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Rec'd by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date 6/18/91 / Time 1130	Received for Laboratory by (Signature) Robert Fletcher	Date 6/18/91 / Time 1130
Print Name Jamie Ascher		Print Name Robert Fletcher	

Special Instructions/Comments Samples stored in locked cooler by NYSDEC. Samples delivered by NYSDEC

000~~10~~ 11

Client Retains Yellow Copy Only

74-15-1 (5/90)—9a

Part 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

☐ Lab Personnel are expected to use caution when handling DEC samples, however, please use special precautions when handling this sample since it is believed to contain significant concentrations of hazardous and/or toxic material(s).

Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- ☐ 2. 13 PP Metals
- ☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- ☐ 7. Halogenated Volatiles (USEPA 601-GC)
- ☐ 10. pH
- ☐ 13. Settleable Solids
- ☐ 16. Nitrate/Nitrite
- ☐ 19. Oil/Grease
- ☐ 22. Other ______
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 5. Cyanide
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 11. COD
- ☐ 14. TKN
- ☐ 17. Total Phosphrous
- ☐ 20. TOC
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 62. CBOD
- ☐ 6. Pesticides/PCB's (USEPA 608-GC)
- ☐ 9. BOD
- ☐ 12. TSS
- ☐ 15. Ammonia
- ☐ 18. Reactive Phosphorus
- ☐ 21. Total Phenols
- ☐ 60. PCB's congener method
- ☐ 64. Total Solids
- ☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
- ☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☒ 27. Metals—Water
- ☒ 28. Cyanide—Water
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☒ 35. Other [illegible]
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 30. B/N/A—Soils/Sediment—GC-MS (ASP #89-2)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☐ 33. Metals—Soil/Sediment
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 39. Corrosivity
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 45. Reactivity
- ☐ 48. Other ______
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 40. VOA—(USEPA 8240)
- ☐ 43. TCLP
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 63. Percent Solids
- ☐ 38. Ignitability
- ☐ 41. BNA—(USEPA 8270)
- ☐ 44. TCLP (Metals Only)
- ☐ 47. Appendix IX
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: J. [illegible]
TELEPHONE NUMBER: [illegible]
REGION NO: 1

CONTRACT LAB: [illegible]
COUNTY: Suffolk
SAMPLING DATE: 6/17/91
MILITARY TIME: 1250

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER: [illegible]
SDG NUMBER: 0[illegible]
SAMPLE NUMBER: 91[illegible]-11
CHECK FOR MS/MD: ☐ This Sample
TYPE OF SAMPLE: ☒ Grab ☐ Composite ☐ Term ____ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:

Check if field duplicate ☐

Outfall Number

Check if sampling is part of inspection ☐

SPDES NUMBER/REGISTRY NUMBER

FLOW GPD MGD

74-15-1 (5/90)—9a

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

☐ Lab Personnel are expected to use caution when handling DEC samples, however, please use special precautions when handling this sample since it is believed to contain significant concentrations of hazardous and/or toxic material(s).

Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

☐ 2. 13 PP Metals
☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
☐ 7. Halogenated Volatiles (USEPA 601-GC)
☐ 10. pH
☐ 13. Settleable Solids
☐ 16. Nitrate/Nitrite
☐ 19. Oil/Grease
☐ 22. Other ______
☐ 3. Volatiles—USEPA 624 (GC/MS)
☐ 5. Cyanide
☐ 8. Aromatic Volatiles (USEPA 602-GC)
☐ 11. COD
☐ 14. TKN
☐ 17. Total Phosphrous
☐ 20. TOC
☐ 59. PCB's at 0.065 ug/L
☐ 62. CBOD
☐ 6. Pesticides/PCB's (USEPA 608-GC)
☐ 9. BOD
☐ 12. TSS
☐ 15. Ammonia
☐ 18. Reactive Phosphorus
☐ 21. Total Phenols
☐ 60. PCB's congener method
☐ 64. Total Solids
☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

☐ 23. (ALL)—Water—Includes 24-28
☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
☐ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
☐ 27. Metals—Water
☐ 28. Cyanide—Water
☐ 66. Dioxin-Water (ASP #89-4)
☐ 35. Other ______
☐ 29. (ALL)— Soil/Sediments—Includes 30-34
☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
☒ 33. Metals—Soil/Sediment [illegible handwriting]
☐ 34. Cyanide—Soils/Sediment
☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

☐ 36. EP Toxicity
☐ 39. Corrosivity
☐ 42. Pesticides/PCB's (USEPA 8080)
☐ 45. Reactivity
☐ 48. Other ______
☐ 37. EP Toxicity (Metals Only)
☐ 40. VOA—(USEPA 8240)
☐ 43. TCLP
☐ 46. Dioxin (USEPA 8280)
☐ 63. Percent Solids
☐ 38. Ignitability
☐ 41. BNA—(USEPA 8270)
☐ 44. TCLP (Metals Only)
☐ 47. Appendix IX
☐ 68. Metals

MUNICIPAL SLUDGE

☐ 49. RSGB-01 ☐ 50. RSSR-01 ☐ 51. RSGR-01 ☐ 52. RSRB-01 ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
☐ 54. RSRO-01 ☐ 55. RSSB-01 ☐ 56. RSRR-01 ☐ 57. RSRR-02 ☐ 58. Other ______

COLLECTED BY: [illegible handwriting]		TELEPHONE NUMBER: 516 [illegible]	REGION NO: 1
CONTRACT LAB: [illegible handwriting]	COUNTY: Suffolk	SAMPLING DATE: [illegible]	MILITARY TIME: 1400

SAMPLE MATRIX: ☐ Air ☒ Soil/Sediment ☐ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE
[illegible]	[illegible]	[illegible]	☐ This Sample	☒ Grab ☐ Composite ☐ Term ___ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:

Check if field duplicate ☐ | Outfall Number | Check if sampling is part of inspection ☐

SPDES NUMBER/REGISTRY NUMBER | FLOW GPD MGD

74-15-1 (5/90)—9a

Part 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

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Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- ☐ 2. 13 PP Metals
- ☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- ☐ 7. Halogenated Volatiles (USEPA 601-GC)
- ☐ 10. pH
- ☐ 13. Settleable Solids
- ☐ 16. Nitrate/Nitrite
- ☐ 19. Oil/Grease
- ☐ 22. Other ______
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 5. Cyanide
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 11. COD
- ☐ 14. TKN
- ☐ 17. Total Phosphrous
- ☐ 20. TOC
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 62. CBOD
- ☐ 6. Pesticides/PCB's (USEPA 608-GC)
- ☐ 9. BOD
- ☐ 12. TSS
- ☐ 15. Ammonia
- ☐ 18. Reactive Phosphorus
- ☐ 21. Total Phenols
- ☐ 60. PCB's congener method
- ☐ 64. Total Solids
- ☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
- ☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☒ 27. Metals—Water
- ☒ 28. Cyanide—Water
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☒ 35. Other C, Cl
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☐ 33. Metals—Soil/Sediment
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 39. Corrosivity
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 45. Reactivity
- ☐ 48. Other ______
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 40. VOA—(USEPA 8240)
- ☐ 43. TCLP
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 63. Percent Solids
- ☐ 38. Ignitability
- ☐ 41. BNA—(USEPA 8270)
- ☐ 44. TCLP (Metals Only)
- ☐ 47. Appendix IX
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: J. Hasher	TELEPHONE NUMBER: 516 751 7900	REGION NO: 1
CONTRACT LAB: NYTest	COUNTY: Suffolk	SAMPLING DATE: 6/17/91 — MILITARY TIME: 945

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE
1H1121	961171	911591-1	☐ This Sample	☐ Composite ☒ Grab ☐ Term ____ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:

Check if field duplicate ☐ | Outfall Number | Check if sampling is part of inspection ☐

SPDES NUMBER/REGISTRY NUMBER | FLOW GPD MGD

0001314

74-15-1 (5/90)—9a

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

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Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- [ ] 2. 13 PP Metals
- [ ] 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- [ ] 7. Halogenated Volatiles (USEPA 601-GC)
- [ ] 10. pH
- [ ] 13. Settleable Solids
- [ ] 16. Nitrate/Nitrite
- [ ] 19. Oil/Grease
- [ ] 22. Other ______
- [ ] 3. Volatiles—USEPA 624 (GC/MS)
- [ ] 5. Cyanide
- [ ] 8. Aromatic Volatiles (USEPA 602-GC)
- [ ] 11. COD
- [ ] 14. TKN
- [ ] 17. Total Phosphrous
- [ ] 20. TOC
- [ ] 59. PCB's at 0.065 ug/L
- [ ] 62. CBOD
- [ ] 6. Pesticides/PCB's (USEPA 608-GC)
- [ ] 9. BOD
- [ ] 12. TSS
- [ ] 15. Ammonia
- [ ] 18. Reactive Phosphorus
- [ ] 21. Total Phenols
- [ ] 60. PCB's congener method
- [ ] 64. Total Solids
- [ ] 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- [ ] 23. (ALL)—Water—Includes 24-28
- [ ] 24. Base-Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- [x] 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- [ ] 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- [x] 27. Metals—Water
- [x] 28. Cyanide—Water
- [ ] 66. Dioxin-Water (ASP #89-4)
- [x] 35. Other Cr+6
- [ ] 29. (ALL)— Soil/Sediments—Includes 30-34
- [ ] 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- [ ] 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- [ ] 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- [ ] 33. Metals—Soil/Sediment
- [ ] 34. Cyanide—Soils/Sediment
- [ ] 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- [ ] 36. EP Toxicity
- [ ] 39. Corrosivity
- [ ] 42. Pesticides/PCB's (USEPA 8080)
- [ ] 45. Reactivity
- [ ] 48. Other ______
- [ ] 37. EP Toxicity (Metals Only)
- [ ] 40. VOA—(USEPA 8240)
- [ ] 43. TCLP
- [ ] 46. Dioxin (USEPA 8280)
- [ ] 63. Percent Solids
- [ ] 38. Ignitability
- [ ] 41. BNA—(USEPA 8270)
- [ ] 44. TCLP (Metals Only)
- [ ] 47. Appendix IX
- [ ] 68. Metals

MUNICIPAL SLUDGE

- [ ] 49. RSGB-01
- [ ] 50. RSSR-01
- [ ] 51. RSGR-01
- [ ] 52. RSRB-01
- [ ] 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- [ ] 54. RSRO-01
- [ ] 55. RSSB-01
- [ ] 56. RSRR-01
- [ ] 57. RSRR-02
- [ ] 58. Other ______

COLLECTED BY: J. Archer	TELEPHONE NUMBER: 516 751 7300	REGION NO: 1

CONTRACT LAB: NY Test	COUNTY: Suffolk	SAMPLING DATE: 6/17/91	MILITARY TIME: 1100

SAMPLE MATRIX: [ ] Air [ ] Soil/Sediment [x] Groundwater [ ] Surface Water [ ] Wastewater [ ] Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE:
5-14 | 3-17 | 1	C 6 | 1 | 7-1	911519- | 12	[ ] This Sample	[x] Grab [ ] Composite [ ] Term ___ hrs

- [ ] Check if there will be more samples with this SDG sent in this calendar week
- Report via Catagory B, unless checked [ ]

SAMPLING POINT:

Check if field duplicate [ ]	Outfall Number	Check if sampling is part of Inspection [ ]

SPDES NUMBER/REGISTRY NUMBER	FLOW GPD MGD

74-15-1 (5/90)—9a

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

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Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- ☐ 2. 13 PP Metals
- ☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- ☐ 7. Halogenated Volatiles (USEPA 601-GC)
- ☐ 10. pH
- ☐ 13. Settleable Solids
- ☐ 16. Nitrate/Nitrite
- ☐ 19. Oil/Grease
- ☐ 22. Other ______
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 5. Cyanide
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 11. COD
- ☐ 14. TKN
- ☐ 17. Total Phosphrous
- ☐ 20. TOC
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 62. CBOD
- ☐ 6. Pesticides/PCB's (USEPA 608-GC)
- ☐ 9. BOD
- ☐ 12. TSS
- ☐ 15. Ammonia
- ☐ 18. Reactive Phosphorus
- ☐ 21. Total Phenols
- ☐ 60. PCB's congener method
- ☐ 64. Total Solids
- ☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
- ☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☒ 27. Metals—Water
- ☒ 28. Cyanide—Water
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☒ 35. Other Cr+
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☐ 33. Metals—Soil/Sediment
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 39. Corrosivity
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 45. Reactivity
- ☐ 48. Other ______
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 40. VOA—(USEPA 8240)
- ☐ 43. TCLP
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 63. Percent Solids
- ☐ 38. Ignitability
- ☐ 41. BNA—(USEPA 8270)
- ☐ 44. TCLP (Metals Only)
- ☐ 47. Appendix IX
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: [illegible]		TELEPHONE NUMBER: [illegible]	REGION NO: 1
CONTRACT LAB: [illegible]	COUNTY: Suffolk	SAMPLING DATE: 6/17/91	MILITARY TIME: 1215

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE:
[illegible]	[illegible]	[illegible] -14	☐ This Sample	☐ Composite ☒ Grab ☐ Term ___ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Category B, unless checked ☐

SAMPLING POINT:	Check if field duplicate ☐	Outfall Number	Check if sampling is part of inspection ☐
	SPDES NUMBER/REGISTRY NUMBER		FLOW — GPD MGD

0001516

74-15-1 (5/90)—9a

Part 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

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Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

☐ 2. 13 PP Metals
☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
☐ 7. Halogenated Volatiles (USEPA 601-GC)
☐ 10. pH
☐ 13. Settleable Solids
☐ 16. Nitrate/Nitrite
☐ 19. Oil/Grease
☐ 22. Other ______
☐ 3. Volatiles—USEPA 624 (GC/MS)
☐ 5. Cyanide
☐ 8. Aromatic Volatiles (USEPA 602-GC)
☐ 11. COD
☐ 14. TKN
☐ 17. Total Phosphrous
☐ 20. TOC
☐ 59. PCB's at 0.065 ug/L
☐ 62. CBOD
☐ 6. Pesticides/PCB's (USEPA 608-GC)
☐ 9. BOD
☐ 12. TSS
☐ 15. Ammonia
☐ 18. Reactive Phosphorus
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☐ 60. PCB's congener method
☐ 64. Total Solids
☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

☐ 23. (ALL)—Water—Includes 24-28
☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
☒ 27. Metals—Water
☒ 28. Cyanide—Water
☐ 66. Dioxin-Water (ASP #89-4)
☒ 35. Other Cr (6+)
☐ 29. (ALL)— Soil/Sediments—Includes 30-34
☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
☐ 33. Metals—Soil/Sediment
☐ 34. Cyanide—Soils/Sediment
☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

☐ 36. EP Toxicity
☐ 39. Corrosivity
☐ 42. Pesticides/PCB's (USEPA 8080)
☐ 45. Reactivity
☐ 48. Other ______
☐ 37. EP Toxicity (Metals Only)
☐ 40. VOA—(USEPA 8240)
☐ 43. TCLP
☐ 46. Dioxin (USEPA 8280)
☐ 63. Percent Solids
☐ 38. Ignitability
☐ 41. BNA—(USEPA 8270)
☐ 44. TCLP (Metals Only)
☐ 47. Appendix IX
☐ 68. Metals

MUNICIPAL SLUDGE

☐ 49. RSGB-01 ☐ 50. RSSR-01 ☐ 51. RSGR-01 ☐ 52. RSRB-01 ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
☐ 54. RSRO-01 ☐ 55. RSSB-01 ☐ 56. RSRR-01 ☐ 57. RSRR-02 ☐ 58. Other ______

COLLECTED BY: J. Archer	TELEPHONE NUMBER: 516-751-7900	REGION NO: 1
CONTRACT LAB: NY Test	COUNTY: Suffolk	SAMPLING DATE: 6/17/91 — MILITARY TIME: 1155

SAMPLE MATRIX:
☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE:
14131	SG-01-21	7-11-2-9-15	☐ This Sample	☒ Grab ☐ Composite ☐ Term ___ hrs.

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:

Check if field duplicate ☐ | Outfall Number | Check if sampling is part of inspection ☐

SPDES NUMBER/REGISTRY NUMBER | FLOW GPD MGD

000~~16~~ 17

74-15-1 (5/90)—9a

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

☐ Lab Personnel are expected to use caution when handling DEC samples, however, please use special precautions when handling this sample since it is believed to contain significant concentrations of hazardous and/or toxic material(s).

Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

☐ 2. 13 PP Metals
☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
☐ 7. Halogenated Volatiles (USEPA 601-GC)
☐ 10. pH
☐ 13. Settleable Solids
☐ 16. Nitrate/Nitrite
☐ 19. Oil/Grease
☐ 22. Other ____
☐ 3. Volatiles—USEPA 624 (GC/MS)
☐ 5. Cyanide
☐ 8. Aromatic Volatiles (USEPA 602-GC)
☐ 11. COD
☐ 14. TKN
☐ 17. Total Phosphrous
☐ 20. TOC
☐ 59. PCB's at 0.065 ug/L
☐ 62. CBOD
☐ 6. Pesticides/PCB's (USEPA 608-GC)
☐ 9. BOD
☐ 12. TSS
☐ 15. Ammonia
☐ 18. Reactive Phosphorus
☐ 21. Total Phenols
☐ 60. PCB's congener method
☐ 64. Total Solids
☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

☐ 23. (ALL)—Water—Includes 24-28
☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
☒ 27. Metals—Water
☒ 28. Cyanide—Water
☐ 66. Dioxin-Water (ASP #89-4)
☒ 35. Other ____
☐ 29. (ALL)— Soil/Sediments—Includes 30-34
☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
☐ 33. Metals—Soil/Sediment
☐ 34. Cyanide—Soils/Sediment
☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

☐ 36. EP Toxicity
☐ 39. Corrosivity
☐ 42. Pesticides/PCB's (USEPA 8080)
☐ 45. Reactivity
☐ 48. Other ____
☐ 37. EP Toxicity (Metals Only)
☐ 40. VOA—(USEPA 8240)
☐ 43. TCLP
☐ 46. Dioxin (USEPA 8280)
☐ 63. Percent Solids
☐ 38. Ignitability
☐ 41. BNA—(USEPA 8270)
☐ 44. TCLP (Metals Only)
☐ 47. Appendix IX
☐ 68. Metals

MUNICIPAL SLUDGE

☐ 49. RSGB-01 ☐ 50. RSSR-01 ☐ 51. RSGR-01 ☐ 52. RSRB-01 ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
☐ 54. RSRO-01 ☐ 55. RSSB-01 ☐ 56. RSRR-01 ☐ 57. RSRR-02 ☐ 58. Other ____

COLLECTED BY: J. Archer	TELEPHONE NUMBER: 516 751 7900	REGION NO: 1
CONTRACT LAB: NY Test	COUNTY: Suffolk	SAMPLING DATE: 6/17/91 · MILITARY TIME: 1155

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ____

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE:
5/H/4/3/1	C6117	5H4381-15	☐ This Sample	☐ Composite ☒ Grab ☐ Term ____ hrs

☐ Check if there will be more samples with this SDG sent in this calendar-week

Report via Catagory B, unless checked ☐

SAMPLING POINT:

Check if field duplicate ☒ | Outfall Number | Check if sampling is part of inspection ☐

SPDES NUMBER/REGISTRY NUMBER | FLOW ____ GPD MGD

Send this sheet with sample to contract lab

74-15-1 (5/90)—9a

Part 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

☐ Lab Personnel are expected to use caution when handling DEC samples, however, please use special precautions when handling this sample since it is believed to contain significant concentrations of hazardous and/or toxic material(s).

Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- ☐ 2. 13 PP Metals
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 6. Pesticides/PCB's (USEPA 608-GC)
- ☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- ☐ 5. Cyanide
- ☐ 9. BOD
- ☐ 7. Halogenated Volatiles (USEPA 601-GC)
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 12. TSS
- ☐ 10. pH
- ☐ 11. COD
- ☐ 15. Ammonia
- ☐ 13. Settleable Solids
- ☐ 14. TKN
- ☐ 18. Reactive Phosphorus
- ☐ 16. Nitrate/Nitrite
- ☐ 17. Total Phosphrous
- ☐ 21. Total Phenols
- ☐ 19. Oil/Grease
- ☐ 20. TOC
- ☐ 60. PCB's congener method
- ☐ 22. Other ______
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 64. Total Solids
- ☐ 62. CBOD
- ☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- ☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☒ 27. Metals—Water
- ☐ 33. Metals—Soil/Sediment
- ☒ 28. Cyanide—Water
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)
- ☒ 35. Other Cr [illegible]

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 38. Ignitability
- ☐ 39. Corrosivity
- ☐ 40. VOA—(USEPA 8240)
- ☐ 41. BNA—(USEPA 8270)
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 43. TCLP
- ☐ 44. TCLP (Metals Only)
- ☐ 45. Reactivity
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 47. Appendix IX
- ☐ 48. Other ______
- ☐ 63. Percent Solids
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: J. A[illegible]		TELEPHONE NUMBER: [illegible]	REGION NO: 1
CONTRACT LAB: [illegible]	COUNTY: [illegible]	SAMPLING DATE: [illegible]	MILITARY TIME: 1320

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE:
[illegible]	[illegible]	[illegible]	☐ This Sample	☐ Composite ☒ Grab ☐ Term ___ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:	Check if field duplicate ☐	Outfall Number	Check if sampling is part of inspection ☐
	SPDES NUMBER/REGISTRY NUMBER		FLOW GPD MGD

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

☐ Lab Personnel are expected to use caution when handling DEC samples, however, please use special precautions when handling this sample since it is believed to contain significant concentrations of hazardous and/or toxic material(s).

Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- ☐ 2. 13 PP Metals
- ☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- ☐ 7. Halogenated Volatiles (USEPA 601-GC)
- ☐ 10. pH
- ☐ 13. Settleable Solids
- ☐ 16. Nitrate/Nitrite
- ☐ 19. Oil/Grease
- ☐ 22. Other ______
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 5. Cyanide
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 11. COD
- ☐ 14. TKN
- ☐ 17. Total Phosphrous
- ☐ 20. TOC
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 62. CBOD
- ☐ 6. Pesticides/PCB's (USEPA 608-GC)
- ☐ 9. BOD
- ☐ 12. TSS
- ☐ 15. Ammonia
- ☐ 18. Reactive Phosphorus
- ☐ 21. Total Phenols
- ☐ 60. PCB's congener method
- ☐ 64. Total Solids
- ☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
- ☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☒ 27. Metals—Water
- ☒ 28. Cyanide—Water
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☒ 35. Other [illegible]
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☐ 33. Metals—Soil/Sediment
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 39. Corrosivity
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 45. Reactivity
- ☐ 48. Other ______
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 40. VOA—(USEPA 8240)
- ☐ 43. TCLP
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 63. Percent Solids
- ☐ 38. Ignitability
- ☐ 41. BNA—(USEPA 8270)
- ☐ 44. TCLP (Metals Only)
- ☐ 47. Appendix IX
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: [illegible]

TELEPHONE NUMBER: [illegible]

REGION NO: 1

CONTRACT LAB: [illegible]

COUNTY: [illegible]

SAMPLING DATE: [illegible]

MILITARY TIME: 1220

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER: [illegible]

SDG NUMBER: [illegible]

SAMPLE NUMBER: [illegible]

CHECK FOR MS/MD: ☐ This Sample

TYPE OF SAMPLE: ☒ Grab ☐ Composite ☐ Term ____ hrs.

Report via Catagory B. unless checked ☐

☐ Check if there will be more samples with this SDG sent in this calendar week

SAMPLING POINT:

Check if field duplicate ☐

Outfall Number

Check if sampling is part of inspection ☐

SPDES NUMBER/REGISTRY NUMBER

FLOW GPD MGD

Send This Sheet With Sample to Contract Lab

74-15-1 (5/90)—9a

Part 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

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Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

- ☐ 2. 13 PP Metals
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 6. Pesticides/PCB's (USEPA 608-GC)
- ☐ 4. Acids Base/Neutrals (USEPA 625-GC/MS)
- ☐ 5. Cyanide
- ☐ 9. BOD
- ☐ 7. Halogenated Volatiles (USEPA 601-GC)
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 12. TSS
- ☐ 10. pH
- ☐ 11. COD
- ☐ 15. Ammonia
- ☐ 13. Settleable Solids
- ☐ 14. TKN
- ☐ 18. Reactive Phosphorus
- ☐ 16. Nitrate/Nitrite
- ☐ 17. Total Phosphrous
- ☐ 21. Total Phenols
- ☐ 19. Oil/Grease
- ☐ 20. TOC
- ☐ 60. PCB's congener method
- ☐ 22. Other ______
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 64. Total Solids
- ☐ 62. CBOD
- ☐ 65. Volatiles USEPA 524.2 (GC/MS)

CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 24. Base/Neutral/Acid (B/N/A)—Water—GC-MS (ASP #89-2)
- ☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☒ 27. Metals—Water
- ☐ 33. Metals—Soil/Sediment
- ☒ 28. Cyanide—Water
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)
- ☒ 35. Other C. [illegible]

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 38. Ignitability
- ☐ 39. Corrosivity
- ☐ 40. VOA—(USEPA 8240)
- ☐ 41. BNA—(USEPA 8270)
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 43. TCLP
- ☐ 44. TCLP (Metals Only)
- ☐ 45. Reactivity
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 47. Appendix IX
- ☐ 48. Other ______
- ☐ 63. Percent Solids
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: [illegible]		TELEPHONE NUMBER: [illegible]	REGION NO: 1
CONTRACT LAB: [illegible]	COUNTY: [illegible]	SAMPLING DATE: [illegible]	MILITARY TIME: 1255

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE
[illegible]	[illegible]	[illegible] 5	☒ This Sample	☒ Grab ☐ Composite ☐ Term ___ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:	Check if field duplicate ☐	Outfall Number	Check if sampling is part of Inspection ☐
	SPDES NUMBER/REGISTRY NUMBER		FLOW GPD MGD

000221

74-15-1 (5/90)—9a

Part 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CONTRACT LAB SAMPLE INFORMATION SHEET

Print legibly

CAUTION (check if applicable)

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Place QA Label Here

CHECK THE BOX PRECEDING THE REQUESTED ANALYSIS

PRIORITY POLLUTANTS (Water Part 136)—SPDES

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- ☐ 10. pH
- ☐ 13. Settleable Solids
- ☐ 16. Nitrate/Nitrite
- ☐ 19. Oil/Grease
- ☐ 22. Other ______
- ☐ 3. Volatiles—USEPA 624 (GC/MS)
- ☐ 5. Cyanide
- ☐ 8. Aromatic Volatiles (USEPA 602-GC)
- ☐ 11. COD
- ☐ 14. TKN
- ☐ 17. Total Phosphrous
- ☐ 20. TOC
- ☐ 59. PCB's at 0.065 ug/L
- ☐ 62. CBOD
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- ☐ 9. BOD
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- ☐ 15. Ammonia
- ☐ 18. Reactive Phosphorus
- ☐ 21. Total Phenols
- ☐ 60. PCB's congener method
- ☐ 64. Total Solids
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CONTRACT LABORATORY PROTOCOLS

- ☐ 23. (ALL)—Water—Includes 24-28
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- ☒ 25. Volatile Organic Analysis VOA—Water—GC-MS(ASP #89-1)
- ☐ 26. Pesticides/PCB's—Water—GC(ASP #89-3)
- ☐ 27. Metals—Water
- ☒ 28. Cyanide—Water
- ☐ 66. Dioxin-Water (ASP #89-4)
- ☒ 35. Other ______
- ☐ 29. (ALL)— Soil/Sediments—Includes 30-34
- ☐ 30. B/N/A/—Soils/Sediment—GC-MS (ASP #89-2)
- ☐ 31. VOA—Soils/Sediments—GC-MS (ASP #89-1)
- ☐ 32. Pesticides/PCB's—Soils/Sediment—GC (ASP #89-3)
- ☐ 33. Metals—Soil/Sediment
- ☐ 34. Cyanide—Soils/Sediment
- ☐ 67. Dioxin-Soil/Sediment (ASP #89-4)

HAZARDOUS WASTES/RCRA ANALYSIS SW-846

- ☐ 36. EP Toxicity
- ☐ 39. Corrosivity
- ☐ 42. Pesticides/PCB's (USEPA 8080)
- ☐ 45. Reactivity
- ☐ 48. Other ______
- ☐ 37. EP Toxicity (Metals Only)
- ☐ 40. VOA—(USEPA 8240)
- ☐ 43. TCLP
- ☐ 46. Dioxin (USEPA 8280)
- ☐ 63. Percent Solids
- ☐ 38. Ignitability
- ☐ 41. BNA—(USEPA 8270)
- ☐ 44. TCLP (Metals Only)
- ☐ 47. Appendix IX
- ☐ 68. Metals

MUNICIPAL SLUDGE

- ☐ 49. RSGB-01
- ☐ 50. RSSR-01
- ☐ 51. RSGR-01
- ☐ 52. RSRB-01
- ☐ 53. RSRI-01 (EP Toxicity-Metals only + RSRR-01)
- ☐ 54. RSRO-01
- ☐ 55. RSSB-01
- ☐ 56. RSRR-01
- ☐ 57. RSRR-02
- ☐ 58. Other ______

COLLECTED BY: [illegible]		TELEPHONE NUMBER: [illegible]	REGION NO: 1
CONTRACT LAB: [illegible]	COUNTY: Suffolk	SAMPLING DATE: [illegible]	MILITARY TIME: 1125

SAMPLE MATRIX: ☐ Air ☐ Soil/Sediment ☒ Groundwater ☐ Surface Water ☐ Wastewater ☐ Other (Specify) ______

CASE NUMBER	SDG NUMBER	SAMPLE NUMBER	CHECK FOR MS/MD	TYPE OF SAMPLE:
[illegible]	[illegible]	[illegible]	☒ This Sample	☒ Grab ☐ Composite ☐ Term ___ hrs

☐ Check if there will be more samples with this SDG sent in this calendar week

Report via Catagory B, unless checked ☐

SAMPLING POINT:	Check if field duplicate ☐	Outfall Number	Check if sampling is part of inspection ☐
	SPDES NUMBER/REGISTRY NUMBER		FLOW GPD MGD

00021 22

nytest environmental inc.

Laboratory Chronicle

Log in No.: 8678
Case No.: SH191
SDG No.: 0617
Project No.: 9118118

Client Name: NYSDEC
Date Received: 6/18/91
Sample ID: As per chain of custody

Organics Extraction:

1. Acids ______
2. Base/Neutrals ______
3. Pesticides/PCBs ______
4. Dioxin ______

Analysis:

1. Volatiles 6/19/91, 6/20/91
2. Acids ______
3. Base/Neutrals ______
4. Pesticides/PCBs ______
5. Dioxin ______

Section Supervisor
Review & Approval DJS

Other Analysis:

______
______
______
______
______
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Section Supervisor
Review & Approval ______

Quality Control Supervisor
Review & Approval DJS

QUALIFIERS

Method Qualifiers for Organic CLP Protocol

Q Qualifier - Specified entries and their meanings as follows:

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and the moisture content for soil samples. If a sample extract cannot be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum attainable detected limits for the sample.

J - Indicates an estimated value. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been successfully confirmed.

B - This flag is used when the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.

E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

nytest environmental inc.

Form I

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-1

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3724

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/19/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	11	
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	7	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-1

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3724

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/19/91

Column (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-2

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3725

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/19/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	2	J
540-59-0	1,2-Dichloroethene (total)	82	
67-66-3	Chloroform	5	
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	12	
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	4300	E
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2800	E
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-2

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3725

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/19/91

Column (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C9 ALKYL BENZENE	36.34	5.2	J
2.	C10 ALKYL BENZENE	37.71	6.9	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-2DL

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: 8678002

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3738

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/20/91

Column: (pack/cap) PACK   Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1000	U
74-83-9	Bromomethane	1000	U
75-01-4	Vinyl Chloride	1000	U
75-00-3	Chloroethane	1000	U
75-09-2	Methylene Chloride	500	U
67-64-1	Acetone	1000	U
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	1000	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
108-05-4	Vinyl Acetate	1000	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	5400	D
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	Trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	1000	U
591-78-6	2-Hexanone	1000	U
127-18-4	Tetrachloroethene	1500	D
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Xylenes (total)	500	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-2DL

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3738

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/20/91

Column (pack/cap) PACK Dilution Factor: 100

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-3

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: 8678003

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3736

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/20/91

Column: (pack/cap) PACK   Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

9159-3

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3736

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/20/91

Column (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-4

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3737

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/20/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-4

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: --   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: 8678004

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3737

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/20/91

Column (pack/cap) PACK   Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-5

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3728

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/19/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	
67-64-1	Acetone	99	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	17	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	17	
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	46	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	30	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	14	
108-90-7	Chlorobenzene	34	
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-5

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3728

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/19/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.04	6.8	J
2.	UNKNOWN	22.97	5.1	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-5MS

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: 8678007

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3739

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/20/91

Column: (pack/cap) PACK   Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	25	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	20	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-5MSD

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3740

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. Date Analyzed: 06/20/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	32	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	22	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-5DUP

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3729

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/19/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	Concentration	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	
67-64-1	Acetone	110	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	15	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	18	
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	17	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	26	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	14	
108-90-7	Chlorobenzene	34	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	6	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-5DUP

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3729

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/19/91

Column (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	METHYL ACETATE	9.07	13	J
2.	UNKNOWN	12.04	7.3	J
3.	UNKNOWN	14.20	5.0	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-6

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: 8678009

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3730

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/19/91

Column: (pack/cap) PACK   Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	97	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	47	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	18	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	10	
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	87	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	12	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	12	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	17	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-6

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3730

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/19/91

Column (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.04	9.5	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9159-7

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: 8678010

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3731

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/19/91

Column: (pack/cap) PACK   Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	CONCENTRATION	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	6	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9159-7

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: 8678010

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3731

Level: (low/med) LOW Date Received: 06/18/91

% Moisture: not dec. ____ Date Analyzed: 06/19/91

Column (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

nytest environmental inc.

Form II

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	9159-1	98	101	93		0
02	9159-2	100	104	95		0
03	9159-2DL	97	91	96		0
04	9159-3	98	94	97		0
05	9159-4	96	93	95		0
06	9159-5	100	98	94		0
07	9159-5DUP	97	103	95		0
08	9159-6	99	101	94		0
09	9159-7	102	96	91		0
10	MSB	96	91	98		0
11	9159-5MS	95	89	96		0
12	9159-5MSD	97	90	96		0
13	VBLKC8	97	101	93		0
14	VBLKC9	98	92	93		0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

nytest environmental inc.

Form III

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case. No.: SH191 SAS No.: ______ SDG No.: 0617

Matrix Spike - EPA Sample No.: 9159-5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	48.8	98	61-145
Trichloroethene	50.0	17.2	62.9	91	71-120
Benzene	50.0	17.2	50.7	67 *	76-127
Toluene	50.0	14.1	51.3	74 *	76-125
Chlorobenzene	50.0	33.7	83.7	100	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	46.9	94	4	14	61-145
Trichloroethene	50.0	62.2	90	1	14	71-120
Benzene	50.0	48.6	63 *	6	11	76-127
Toluene	50.0	50.3	72 *	3	13	76-125
Chlorobenzene	50.0	83.7	100	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 4 out of 10 outside limits

COMMENTS: NYSDEC,9159-5,8678005,RECD6/18/91
5ML,INST C

nytest environmental inc

3A

WATER VOLATILE MATRIX SPIKE BLANK

Lab Name: NYTEST ENV INC

Lab Code: NYTEST

Matrix Spike Sample No.: MSB

Contract: 9118118
Case No.: SH191
SDG#: 0617
Log In: 8678
File No.: C3741

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	#	QC LIMITS REC.
1,1-Dichloroethene	50	0.0	44.0	88	OK	75 - 125
Trichloroethene	50	0.0	47.0	94	OK	75 - 125
Benzene	50	0.0	46.0	92	OK	75 - 125
Toluene	50	0.0	49.0	98	OK	75 - 125
Chlorobenzene	50	0.0	50.0	100	OK	75 - 125

#Column to be used to flag recovery values with an asterix

*Values outside of QC limits

Spike Recovery: 0 of 5 outside QC limits

nytest environmental inc.

Form IV

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Lab File ID: C3720 Lab Sample ID: VBLKC8

Date Analyzed: 06/19/91 Time Analyzed: 1124

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	9159-1	8678001	C3724	1425
02	9159-2	8678002	C3725	1519
03	9159-5	8678005	C3728	1759
04	9159-5DUP	8678006	C3729	1852
05	9159-6	8678009	C3730	1945
06	9159-7	8678010	C3731	2038

COMMENTS: VBLKC8
5ML,INST C

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC8

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: VBLKC8

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3720

Level: (low/med) LOW   Date Received: ______

% Moisture: not dec. ____   Date Analyzed: 06/19/91

Column: (pack/cap) PACK   Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	13	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKC8

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: VBLKC8

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3720

Level: (low/med) LOW   Date Received: ______

% Moisture: not dec. ____   Date Analyzed: 06/19/91

Column (pack/cap) PACK   Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: ______ SDG No.: 0617

*Lab File ID: C3735 Lab Sample ID: VBLKC9

Date Analyzed: 06/20/91 Time Analyzed: 0858

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	9159-2DL	8678002	C3738	1145
02	9159-3	8678003	C3736	0959
03	9159-4	8678004	C3737	1053
04	MSB	MSB	C3741	1422
05	9159-5MS	8678007	C3739	1238
06	9159-5MSD	8678008	C3740	1330

COMMENTS: VBLKC9
5ML,INST C

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC9

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: VBLKC9

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3735

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/20/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKC9

Lab Name: NYTEST ENV INC Contract: 9118118

Lab Code: 10195 Case No.: SH191 SAS No.: SDG No.: 0617

Matrix: (soil/water) WATER Lab Sample ID: VBLKC9

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C3735

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/20/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: NYTEST ENV INC   Contract: 9118118

Lab Code: 10195   Case No.: SH191   SAS No.: ______   SDG No.: 0617

Matrix: (soil/water) WATER   Lab Sample ID: MSB

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: C3741

Level: (low/med) LOW   Date Received: 06/18/91

% Moisture: not dec. ____   Date Analyzed: 06/20/91

Column: (pack/cap) PACK   Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	32	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	44	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	47	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	46	
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	49	
108-90-7	Chlorobenzene	50	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

REFERENCE NO. 36

MALCOLM PIRNIE, INC.	PROJECT NOTES

To: File	Date: 12/24/91
From: Steven T. McNulty	Project Number: 9002-10-1
Subject: Volumetrics Techniques, Ltd.	Site Name: Janeco Industries, Inc

Enclosed is a copy of the summary package of the Volumetrics Techniques, Ltd. (NON-CLP) Data Package. The entire data package was obtained by MPI and was reviewed thru Quality Assurance / Quality Control procedures by an EPA certified data validation group, present in the MPI office. The analytical resulted presented in this report are the exact results presented in the data package.

from AKRF lab analyzed samples

Analytical Results of TAL Metals in Soil
Collected at Jameco
milligrams per liter

	MW-1 4-6	MW-1 9-11	MW-1 14-16	MW-1 19-21	MW-2 4-6	MW-2 9-11	MW-2 14-16	MW-2 19-21	MW-3 4-6	MW-3 8-10
Aluminum	1321.36	506.62	779.60	642.59	3183.33	1260.63	1595.25	559.27	829.37	1896.50
Antimony	U	U	U	U	U	U	U	U	U	U
Arsenic	1.85	8.25	1.42	2.45	2.67	2.52	2.75	1.20	4.5	6.75
Barium	6.55	4.12	3.90	3.67	9.36	6.48	5.12	3.19	3.09	6.38
Beryllium	U	U	U	U	U	U	U	U	U	U
Cadmium	U	U	U	U	U	U	U	U	U	U
Calcium	4442.37	276.28	122.59	98.34	3692.98	4289.26	3228.31	437.63	106.57	102.74
Chromium (total)	5.87	4.12	3.40	3.51	29.93	33.94	28.62	5.70	2.99	8.13
Cobalt	7.35	7.15	5.85	6.75	8.30	7.15	6.30	5.35	6.30	6.95
Copper	6.15	6.46	3.25	4.06	76.75	77.71	54.09	14.60	6.15	14.25
Iron	3015.13	4342.82	1438.95	2050.42	4702.39	6216.87	7273.60	1814.28	1095.05	3082.47
Lead	U	U	U	U	U	U	U	U	U	U
Magnesium	384.75	131.75	174.65	82.85	1164.60	1284.30	1041.45	218.75	65.75	128.25
Manganese	52.70	22.10	20.40	13.50	28.95	30.15	22.60	25.15	21.70	34.20
Mercury	0.003	0.001	0.034	U	0.059	0.068	0.031	0.012	0.028	0.001
Nickel	16.19	2.55	U	28.18	52.70	42.10	60.39	8.46	5.83	18.27
Potassium	134.75	110.75	138.85	99.60	148.30	118.0	143.40	88.90	75.85	120.40
Selenium	1.31	1.35	2.65	3.41	1.95	2.65	2.30	1.65	5.20	3.55
Silver	U	U	U	U	U	U	U	U	U	U
Sodium	187.92	147.27	196.40	183.24	230.98	238.90	157.55	180.42	192.65	197.22
Thallium	1099.28	U	U	750.95	1688.76	2290.98	2932.12	U	380.37	1040.74
Vanadium	0.58	U	3.45	U	2.94	1.60	5.08	U	U	1.06
Zinc	2.51	2.58	11.00	4.64	32.12	27.89	8.44	11.21	5.03	7.53
Cyanide (mg/kg)	U	U	U	U	U	U	U	U	U	U

U = Not Detected

N

Analytical Resul
Collected at Jam
milligrams per l

	MW-3 14-16	MW-3 18-21	MW-4 4-6	MW-4 8-12	MW-4 14-16	MW-4 18-21	MW-5 4-6	MW-5 9-11	MW-5 14-18	MW-5 19-21
Aluminum	876.78	743.16	2849.97	1083.26	752.75	715.18	2238.59	1406.16	554.58	477.63
Antimony	U	U	U	U	U	U	U	U	U	U
Arsenic	8.75	7.70	2.70	1.875	1.30	0.67	6.52	5.0	3.90	2.55
Barium	5.92	6.45	5.72	6.49	9.77	5.90	92.86	4.62	6.49	7.25
Beryllium	U	U	U	U	U	U	U	U	U	U
Cadmium	U	U	U	U	U	U	U	U	U	U
Calcium	119.24	142.37	134.55	121.20	90.41	145.15	2546.17	402.42	99.22	63.92
Chromium (total)	19.57	27.20	9.43	57.06	68.15	43.73	118.40	15.96	5.42	3.40
Cobalt	6.90	6.25	6.35	4.63	7.30	6.35	8.10	7.75	6.55	7.50
Copper	40.00	65.40	3.25	83.05	89.67	90.59	213.61	10.22	12.21	8.13
Iron	5624.86	4456.69	4046.48	2817.17	3311.97	2610.69	4795.17	5600.97	2292.68	1582.63
Lead	U	U	U	U	U	U	10.57	U	U	U
Magnesium	92.30	122.0	136.45	128.90	107.15	124.10	397.25	200.15	79.60	78.55
Manganese	29.15	19.50	25.40	18.05	17.10	14.0	48.40	42.45	7.85	7.20
Mercury	0.001	U	U	U	0.003	0.044	0.146	0.020	0.140	1.352
Nickel	13.42	40.57	28.65	33.70	37.90	42.52	80.33	42.11	8.36	20.71
Potassium	107.20	109.95	107.85	121.75	110.93	113.65	75.50	94.85	83.25	56.05
Selenium	2.30	3.87	3.25	2.70	2.0	1.05	4.0	1.6	1.30	2.75
Silver	U	U	U	U	U	U	U	U	U	U
Sodium	151.59	130.62	211.76	226.61	255.90	241.57	183.14	11.13	117.72	113.41
Thallium	1969.57	1462.74	1641.42	1124.62	1212.35	1014.05	1579.18	U	750.03	522.08
Vanadium	U	U	4.19	1.24	0.54	1.84	0.99	1.50	U	U
Zinc	12.07	15.51	16.55	11.94	11.47	11.97	80.56	14.56	19.04	6.85
Cyanide (mg/kg)	U	U	U	U	U	U	U	U	U	U

U = Not Detected

Analytical Resul
Collected at Jam
milligrams per l

	MW-6 4-8	MW-6 9-13	MW-6 14-16	MW-6 19-21	B-7-L 2-4	B-7-L 4-6	B-7-L 6-8	B-8-L 2-4	B-8-L 4-6	B-8-L 6-10	B-9-OB 0-4	B-10-OB 0-4
Aluminum	2337.35	1256.98	619.48	563.63	4763.03	3074.47	1897.94	4856.52	3792.69	1078.00	4066.84	6422.91
Antimony	U	U	U	U	U	U	U	U	U	U	U	U
Arsenic	12.25	4.7	1.75	1.44	5.5	12.25	6.87	1.20	7.80	2.15	9.67	170.85
Barium	8.05	4.89	3.49	5.96	18.38	15.45	12.04	19.66	22.95	13.02	27.24	24.40
Beryllium	U	U	U	U	U	U	U	U	U	U	U	U
Cadmium	U	U	U	U	U	U	U	U	U	U	U	U
Calcium	333.43	150.03	130.48	110.09	7577.26	6473.47	4943.12	916.12	587.22	184.85	7904.26	4018.80
Chromium (total)	361.30	15.44	27.73	6.09	1046.89	326.85	294.24	114.91	3423.63	119.80	89.81	347.98
Cobalt	7.85	7.15	5.85	5.20	6.05	7.15	6.55	7.60	9.45	6.0	8.55	7.45
Copper	245.26	29.62	8.98	9.17	893.35	260.74	241.99	5643.26	3375.84	194.30	234.50	283.70
Iron	3088.85	3059.27	1517.37	1707.10	5722.94	4215.78	3607.52	161.91	3996.49	1820.20	6132.59	6371.80
Lead	41.48	U	U	U	87.77	29.36	U	U	420.46	U	21.47	30.70
Magnesium	202.65	161.05	125.60	128.50	421.20	374.55	329.50	303.50	152.70	104.65	353.85	357.95
Manganese	21.15	24.60	5.85	7.35	69.35	51.30	31.75	39.65	21.40	9.55	82.40	23.54
Mercury	0.207	U	0.023	U	0.063	0.178	0.016	0.060	0.055	0.012	0.095	0.139
Nickel	225.60	60.73	13.98	13.18	332.39	111.563	123.79	161.91	962.09	65.38	69.94	469.99
Potassium	136.25	141.25	99.25	57.35	282.80	319.40	255.50	282.20	346.60	145.0	236.50	655.70
Selenium	2.70	1.1	0.98	3.35	5.5	4.0	2.70	5.0	1.00	4.80	3.35	2.5
Silver	U	U	U	U	U	U	U	U	U	U	U	U
Sodium	158.06	120.09	146.04	160.99	295.01	241.47	232.27	187.05	241.91	52.62	109.40	230.36
Thallium	960.20	1642.49	495.15	550.57	U	U	U	U	U	671.20	2123.19	U
Vanadium	U	2.04	U	U	2.57	1.96	U	4.45	U	U	3.98	4.51
Zinc	129.99	13.53	5.03	4.58	375.33	92.36	100.75	71.08	859.16	46.62	185.62	170.85
Cyanide (mg/kg)	U	U	U	U	U	U	U	U	2.02	U	U	U

U = Not Detected

Analytical Resul
Collected at Jam
milligrams per l

	B-11-T 0-3	B-12-T 0-5	B-13-T 0-4	B-14-T 0-4	B-15-T 0-4	SLUDGE	SD-SEDIMENT	LP-1	LP-2	LP-3	LP-4	LP-GRAB
Aluminum	5650.58	4433.92	4262.37	4631.89	3916.64	4454.98	782.15	1264.67	907.26	862.16	864.79	2376.995
Antimony	U	U	U	U	U	U	U	U	U	U	U	U
Arsenic	27.75	9.62	7.42	8.62	8.45	5.80	2.70	11.0	3.50	2.48	8.25	3.75
Barium	17.99	29.67	61.57	20.27	241.73	40.35	6.66	287.05	330.47	373.24	764.71	828.87
Beryllium	U	U	U	U	U	U	U	U	U	U	U	U
Cadmium	U	U	U	U	U	U	U	U	U	U	U	U
Calcium	2360.39	15942.78	8802.91	1992.54	1048.57	734.58	1701.89	276.79	284.62	326.96	259.82	195.39
Chromium (total)	0.60	749.51	736.19	44.76	170.53	3801.93	8.49	473.90	799.79	1335.67	1093.48	2867.03
Cobalt	7.35	9.85	7.20	5.55	8.30	9.65	8.10	8.10	7.60	6.95	7.40	10.05
Copper	39.65	654.21	646.60	140.28	337.53	3645.68	26.51	182.18	496.39	298.53	279.60	906.16
Iron	0.81	10702.65	6112.46	5857.66	4403.32	4739.17	1355.92	2163.64	1784.40	1270.39	1884.85	3495.87
Lead	U	84.73	71.64	U	24.16	556.37	U	U	21.89	47.62	38.59	157.57
Magnesium	350.65	969.40	412.60	313.85	248.50	178.40	304.90	154.30	165.80	71.50	138.65	196.75
Manganese	73.80	100.05	60.95	51.10	30.70	24.45	25.55	12.95	12.40	7.40	10.0	36.80
Mercury	0.066	0.044	0.312	0.071	0.116	0.068	U	0.001	0.001	0.011	U	0.134
Nickel	16.89	227.13	378.19	33.10	106.23	999.65	65.02	326.05	754.11	1094.66	937.95	2652.16
Potassium	318.70	213.90	523.80	537.30	210.00	487.0	103.20	97.25	71.45	67.75	88.15	112.25
Selenium	3.35	1.86	2.90	3.5	5.50	2.25	4.82	1.37	3.25	2.02	2.30	1.95
Silver	U	U	U	U	U	U	U	U	U	U	U	U
Sodium	272.71	135.35	224.04	194.03	158.83	208.22	189.20	355.70	268.03	258.99	220.65	175.64
Thallium	2179.34	3619.69	U	U	U	U	472.63	U	578.71	410.16	522.79	1339.51
Vanadium	5.25	4.66	2.22	4.34	3.18	U	3.29	U	U	U	U	U
Zinc	46.22	290.68	243.71	44.03	128.78	975.48	69.47	103.70	316.84	468.22	236.10	674.53
Cyanide (mg/kg)	U	U	U	U	U	10.42	U	U	U	U	U	0.04

U = Not Detected

Toxicity Characteristic Leachate Procedure Results
Collected at Jameco
milligrams per liter

	Toxicity Characteristic	MW-1 4-6	MW-1 9-11	MW-1 14-16	MW-1 19-21	MW-2 4-6	MW-2 9-11	MW-2 14-16	MW-2 19-21	MW-3 4-6	MW-3 8-10
Arsenic	5.0	0.62	0.20	0.56	0.22	0.75	1.06	1.06	0.74	0.35	0.88
Barium	100.0	13.22	0.91	28.42	25.49	16.74	14.89	19.75	24.85	0.53	0.81
Cadmium	1.0	U	U	U	U	U	U	U	U	U	U
Chromium (total)	5.0	U	1.89	2.72	1.42	0.78	1.26	1.72	1.07	1.41	0.82
Lead	5.0	U	U	U	U	U	U	U	U	U	U
Mercury	0.2	U	U	U	U	U	U	0.003	U	0.001	U
Selenium	1.0	1.35	1.43	1.15	1.53	1.42	1.55	1.30	1.65	2.04	1.58
Silver	5.0	U	U	U	U	U	U	U	U	U	U

U = Not Detected

Toxicity Characteristic Leachate
Collected at Jameco
milligrams per liter

	Toxicity Characteristic	MW-3 14-16	MW-3 18-21	MW-4 4-6	MW-4 8-12	MW-4 14-16	MW-4 18-21	MW-5 4-6	MW-5 9-11	MW-5 14-18	MW-5 19-21
Arsenic	5.0	0.59	0.64	0.92	1.10	0.51	0.27	0.69	0.67	0.22	0.67
Barium	100.0	2.48	21.62	25.14	21.25	23.57	22.93	35.07	18.82	34.38	35.26
Cadmium	1.0	U	U	U	U	U	U	U	U	U	U
Chromium (total)	5.0	1.88	2.38	6.00	2.70	3.45	3.59	0.25	4.10	2.91	3.01
Lead	5.0	U	U	U	U	U	U	U	U	U	U
Mercury	0.2	U	U	U	U	0.001	U	U	U	0.001	0.002
Selenium	1.0	1.59	1.35	1.35	1.16	1.35	0.96	2.1	1.35	2.20	1.95
Silver	5.0	U	U	U	1.49	U	U	U	U	U	U

U = Not Detected

Toxicity Characteristic Leachate
Collected at Jameco
milligrams per liter

	Toxicity Characteristic	MW-6 4-8	MW-6 9-13	MW-6 14-16	MW-6 19-21	B-7-L 2-4	B-7-L 4-6	B-7-L 6-8	B-8-L 2-4	B-8-L 4-6	B-8-L 6-10
Arsenic	5.0	U	0.62	0.66	0.49	0.53	0.78	0.24	0.54	0.60	0.55
Barium	100.0	17.01	16.84	16.96	69.88	13.67	29.99	20.84	15.87	23.36	29.62
Cadmium	1.0	U	U	U	U	U	U	U	U	U	U
Chromium (total)	5.0	3.24	2.75	2.57	2.94	0.58	2.01	10.05	0.84	50.55	2.06
Lead	5.0	U	U	U	U	U	U	U	U	7.11	U
Mercury	0.2	0.001	U	U	0.001	0.004	U	U	U	0.011	0.002
Selenium	1.0	1.40	3.38	2.15	1.60	1.55	1.30	0.96	1.42	0.30	2.25
Silver	5.0	U	U	U	U	U	U	U	U	U	U

Toxicity Characteristic Leachate
Collected at Jameco
milligrams per liter

	Toxicity Characteristic	B-9-OB 0-4	B-10-OB 0-4	B-11-T 0-3	B-12-T 0-5	B-13-T 0-4	B-14-T 0-4	B-15-T 0-4	SLUDGE	SD-SEDIMENT
Arsenic	5.0	0.74	0.75	0.51	0.92	0.86	0.68	0.78	0.65	0.59
Barium	100.0	19.30	19.76	13.27	16.17	31.19	25.84	97.72	26.42	13.92
Cadmium	1.0	U	U	U	U	U	U	U	U	U
Chromium (total)	5.0	0.47	5.80	0.60	0.85	10.95	1.61	U	91.80	U
Lead	5.0	U	U	U	U	U	U	U	14.09	U
Mercury	0.2	U	U	U	0.001	0.008	U	0.001	0.043	U
Selenium	1.0	1.16	1.30	1.16	1.60	2.0	1.60	1.30	1.54	2.18
Silver	5.0	U	U	U	U	U	U	U	U	U

U = Not Detected

Toxicity Characteristic Leachate
Collected at Jameco
milligrams per liter

	Toxicity Characteristic	LP-1	LP-2	LP-3	LP-4	LP-GRAB
Arsenic	5.0	0.26	0.57	0.77	0.62	1.13
Barium	100.0	29.70	35.15	21.43	33.45	16.97
Cadmium	1.0	U	U	U	U	U
Chromium (total)	5.0	5.08	21.75	38.48	30.08	47.32
Lead	5.0	U	U	U	U	U
Mercury	0.2	U	U	U	U	0.003
Selenium	1.0	2.09	1.65	2.0	2.02	1.43
Silver	5.0	U	U	U	U	0.63

U = Not Detected

Analytical Results of Volatile Organic Compounds in Soil Samples
Collected at Jameco
micrograms per liter ppb

	MW-1 4-6	MW-1 9-11	MW-1 14-16	MW-1 19-21	MW-2 4-6	MW-2 9-11	MW-2 14-16	MW-2 19-21	MW-3 4-6	MW-3 8-10
Chloromethane	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	U	U
2-Cjloroethylvinyl Ether	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U	U
1,3-Dichloropropene-cis	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U	U
TOTAL VOLATILE ORGANICS	0	0	0	0	0	0	0	0	0	0

U = Not Detected
J = Estimated Value

Analytical Results of Volati
Collected at Jameco
micrograms per liter

	MW-3 14-16	MW-3 18-20	MW-4 4-6	MW-4 8-12	MW-4 14-16	MW-4 18-21	MW-5 4-6	MW-5 9-11	MW-5 14-18	MW-5 19-21
Chloromethane	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	U	U
2-Cjloroethylvinyl Ether	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U	U
1,3-Dichloropropene-cis	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U	U
TOTAL VOLATILE ORGANICS	0	0	0	0	0	0	0	0	0	0

U = Not Detected
J = Estimated Value

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Analytical Results of Volati
Collected at Jameco
micrograms per liter

	MW-6 4-8	MW-6 9-13	MW-6 14-16	MW-6 19-21	B-7-L 2-4	B-7-L 4-6	B-7-L 6-8	B-8-L 2-4	B-8-L 4-6	B-8-L 6-10
Chloromethane	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	U	U
2-Cjloroethylvinyl Ether	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U	U
1,3-Dichloropropene-cis	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U	U
TOTAL VOLATILE ORGANICS	0	0	0	0	0	0	0	0	0	0

U = Not Detected

Analytical Results of Volati
Collected at Jameco
micrograms per liter

	B-9-OB 0-4	B-10-OB 0-4	B-11-T 0-3	B-12-T 0-5	B-13-T 0-4	B-14-T 0-4	B-15-T 0-4	SLUDGE	SD-SEDIMENT
Chloromethane	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	U
2-Cjloroethylvinyl Ether	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U
1,3-Dichloropropene-cis	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U
TOTAL VOLATILE ORGANICS	0	0	0	0	0	0	0	0	0

U = Not Detected
J = Estimated Value
B = Detected in Method Blank
T = Detected Above Detection

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Analytical Results of Volati
Collected at Jameco
micrograms per liter

	LP-1	LP-2	LP-3	LP-4	LP-GRAB
Chloromethane	U	U	U	U	U
Bromomethane	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U
Chloroethane	U	U	U	U	U
Methylene Chloride	U	U	U	U	U
2-Cjloroethylvinyl Ether	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U
Chloroform	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U
Trichloroethene	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U
Benzene	U	U	U	U	U
1,3-Dichloropropene-cis	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U
Toluene	U	U	U	U	U
Chlorobenzene	U	U	U	U	U
Ethylbenzene	U	U	U	U	U
TOTAL VOLATILE ORGANICS	0	0	0	0	0

U = Not Detected
J = Estimated Value

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Analytical Results of TAL Metals in Water
Collected at Jameco
milligrams per liter

	Guidance Value (ppb)	Standard Value (ppb)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	Leaching Pool	Production Well
Aluminum	--	--	U	U	0.20	0.24	U	U	U	U
Antimony	3	--	U	U	U	U	U	U	U	U
Arsenic	--	25	0.01	0.01	U	U	0.01	0.01	0.01	0.01
Barium	--	1,000	0.06	0.10	0.03	0.02	2.19	0.24	0.05	0.42
Beryllium	3	--	U	U	U	U	U	U	U	U
Cadmium	--	10	U	U	U	U	U	U	U	U
Calcium	--	--	82.17	51.44	37.00	23.64	70.41	57.74	16.81	51.43
Chromium (total)	--	50	U	U	U	U	0.01	0.01	0.03	U
Chromium (hexavalent)	--	50	U	U	U	U	U	U	U	U
Cobalt	--	--	0.12	0.11	0.10	0.11	0.13	0.10	0.16	0.12
Copper	--	200	0.02	0.23	0.39	1.52	U	U	0.05	0.36
Iron	--	300	0.51	2.96	0.60	0.90	7.86	6.33	0.28	9.79
Lead	--	25	U	U	U	U	U	U	U	U
Magnesium	35,000	--	364.47	307.89	69.75	48.36	223.86	206.52	33.24	292.56
Manganese	--	300	0.77	0.68	0.33	0.09	0.29	0.28	U	0.72
Mercury	--	2	U	U	U	U	U	U	U	U
Nickel	--	--	U	0.49	0.30	0.53	0.26	0.10	9.06	0.02
Potassium	--	--	2.38	1.23	3.95	1.267	3.361	5.02	0.937	2.248
Selenium	--	10	0.03	0.02	0.03	0.05	0.03	0.02	0.04	0.02
Silver	--	50	U	U	U	U	U	U	U	U
Sodium	--	--	25.71	12.87	321.49	341.06	19.63	12.39	357.29	29.87
Thallium	4	--	U	U	0.57	0.79	U	U	U	U
Vanadium	--	--	U	U	U	U	U	U	U	U
Zinc	--	300	0.03	0.35	0.09	0.14	0.11	0.03	0.07	0.17
Cyanide	--	100	U	U	U	U	U	U	U	U

U = Not Detected

Analytical Results of Volatile Organic Compounds in Water Samples
Collected at Jameco
micrograms per liter

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	Leaching Pool	Production Well
Chloromethane	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U
2-Chloroethylvinyl Ether	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U
1,3-Dichloropropene-cis	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U
TOTAL VOLATILE ORGANICS	0	0	0	0	0	0	0	0

U = Not Detected

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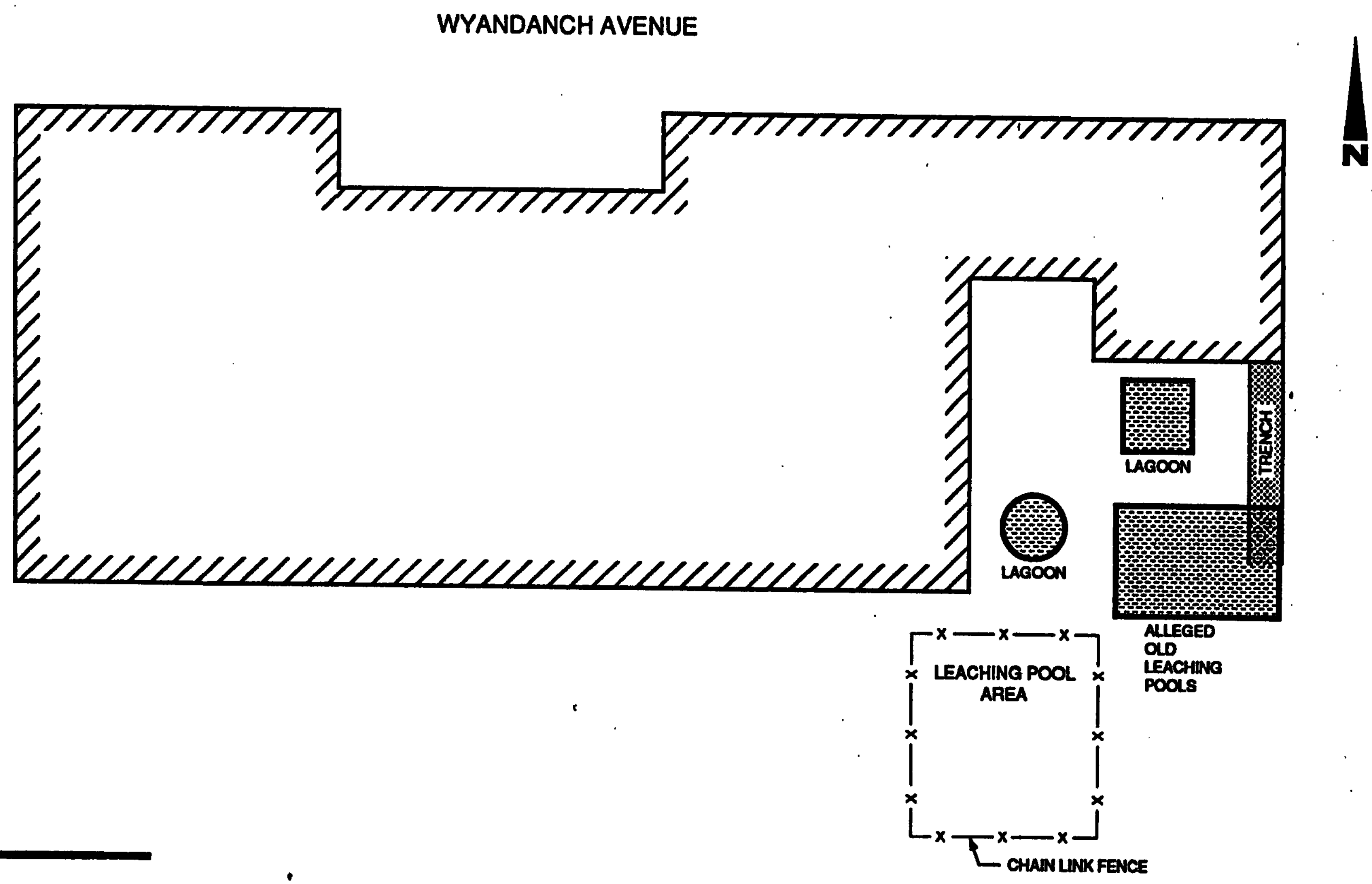

LEGEND

- Previously Existing Structures (from 1969 survey)
- Previous Sampling Area

0 100 FEET

SCALE

Figure _

Previously Existing Structures

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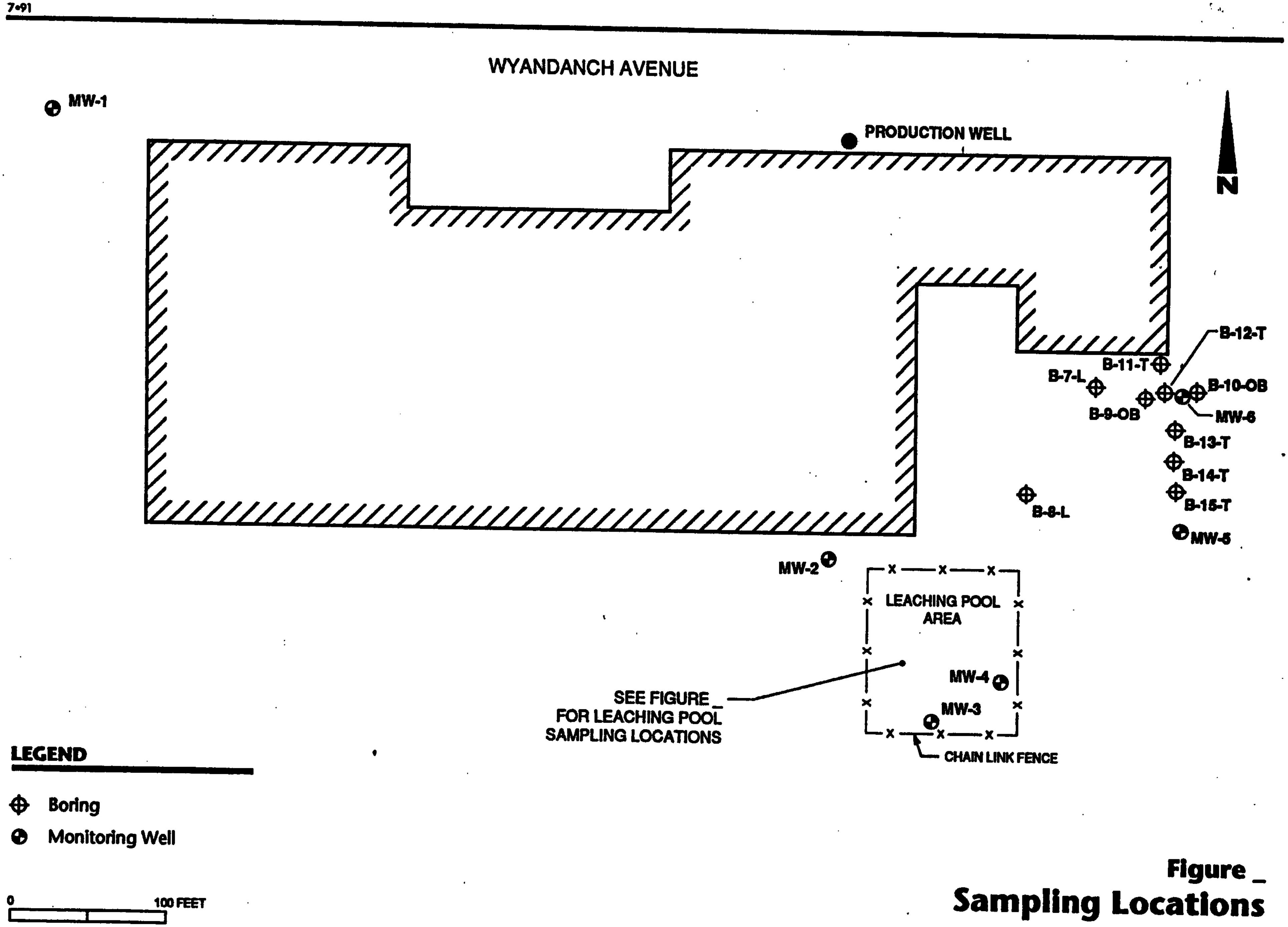

Figure _

Sampling Locations

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Figure _

Leaching Pool Samples

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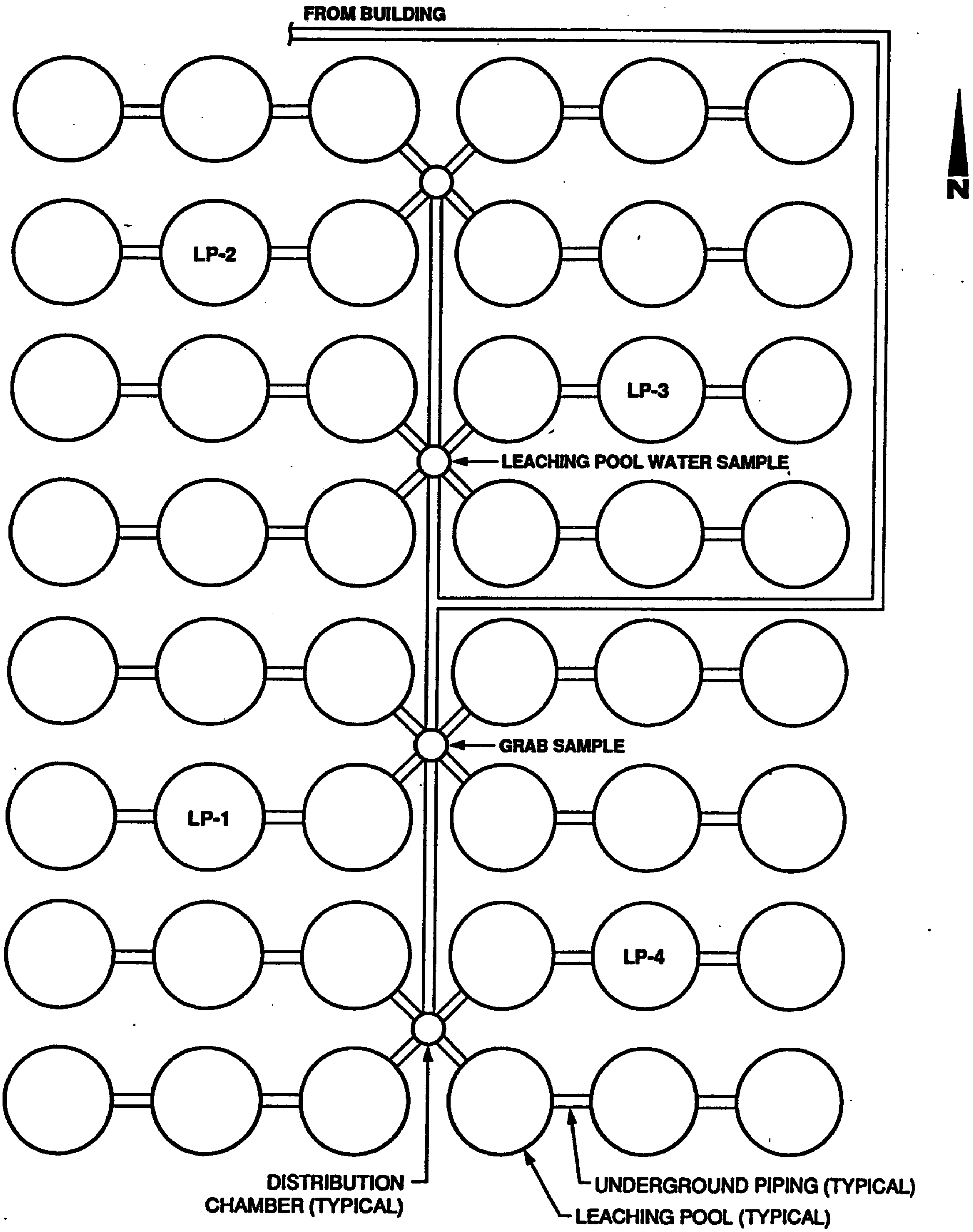

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